Letter 6

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ONE WINTER STREET, BOSTON, MA 02108 617-292-5500

JANE SWIFT
Governor

BOB DURAND
Secretary

LAUREN A. LISS
Commissioner

June 8, 2001

Secretary of Environmental Affairs
Attention MEPA Office
Mr. Arthur Pugsley – EOEA No. 10458
251 Causeway Street
Boston, MA 02114

Re: Logan Airside Improvements Planning Project

Dear Secretary Durand:

The Department of Environmental Protection (DEP) has reviewed the Logan Airside Improvements Planning Project Supplemental Draft Environmental Impact Statement/Final Environmental Impact Report (SDEIS/FEIR) and is pleased to submit the following comments concerning air quality. DEP's comments also reflect the Massachusetts Port Authority's (Massport) Air Quality Initiative document, which was finalized in March 2001.

Summary Air Quality Analysis

The air quality analysis presented in the SDEIS/FEIR includes both an emissions inventory and dispersion modeling. The emissions inventory analysis compares the emissions burden of the alternatives and concludes that the preferred alternative (Runway 14/32, Centerfield Taxiway, taxiway improvements, and reductions in approach minimums) will reduce emissions and improve air quality over the no-build alternative. The analysis was expanded for the DEIR to include the impact of probable regional jet utilization of Runway 14/32. The dispersion modeling results conclude that the highest predicted levels of CO, nitrogen dioxide (NO_2) and PM_{10} are below state and federal standards.

The SDEIS/FEIR indicates that the proposed alternative will benefit air quality as compared to the other alternatives due to improved airfield efficiency and shorter delay periods. The project is being proposed by Massport to reduce aircraft delays and the associated costs of

such delays during certain wind and weather conditions. Massport states that the project is not designed to provide additional capacity for increased operations at Logan Airport. While DEP agrees that the project, and runway 14/32 in particular, will not be the primary factor that will draw additional air traffic to Logan, air travel and passenger demand is projected to increase dramatically. Future annual Environmental Status and Planning Reports (ESPR) submitted to the MEPA Office should continue to report on the relationship between capacity, air passenger demand and air quality. 6.1

Massport's Air Quality Initiative

In March, Massport announced an Air Quality Initiative (AQI), which is designed to address the cumulative and long-term air quality impacts of Logan Airport. Aircraft emissions represent one of the last sectors in emission inventories that are not controlled and/or slated for near- and long-term reductions. DEP commends Massport for developing and committing to this program, which is the first of its kind in the nation. The program is a voluntary initiative rather than a regulatory approach, but will result in real air quality improvements at Logan Airport and in the surrounding community impacted by Logan Airport.

The AQI commits Massport to a program to maintain ozone precursor emissions, including volatile organic compounds (VOC) and nitrogen oxides (NOx), at 1999 levels, or lower, regardless of the increase in the number of operations. Recognizing that the ability to regulate and to set emission standards for aircraft rests at the federal and international levels, Massport's program to reduce emissions will include air quality mitigation measures on and off the airport. Massport will continue to reduce emissions from other activities such as ground service equipment (GSE) and ground transportation and will pass the cost of these reductions to airport users including the airlines. DEP believes that this approach will send a market signal to airport users to pursue less polluting options to their current activities. DEP supports Massport's proposal for peak period pricing. DEP recommends that Massport consider wider and more accelerated use of peak period pricing to obtain fuller advantage of that management tool's capability to reduce air pollution by reducing delays caused by overscheduling and other factors. 6.2

Massport will also initiate an emission generation and mobile source credit schemes and will prioritize the purchase of credits in the affected communities. DEP believes that there are numerous opportunities to reduce emissions including, but not limited to, the purchase of alterative fuel vehicles and the expansion of Massport's commitment to a diesel retrofit program into the community. For instance, school buses are now being targeted in many areas for retrofits. DEP is willing to work with Massport to identify projects in the community, which could provide the required emission reductions.

Massport has indicated that it will report on the AQI through the ESPR, which are submitted to MEPA yearly. If done properly, this reporting will allow stakeholders, including DEP, to monitor the effectiveness of the AQI. DEP recommends that this reporting include a number of elements including: 6.3

- the level of emission reductions achieved by the AQI as compared to 1999 emission levels for VOC and NOx and other pollutants, as appropriate;

- the incentives and/or disincentives Massport will use to require and encourage airport users to reduce emissions;
- an analysis of whether the voluntary approach is working to meet the goals of the AQI; and
- a detailed description of the public process Massport will initiate with the community and other stakeholders to generate emission credits.

Ground Transport

DEP believes improved transit service to Logan in integral to the Commonwealth's goal of reducing emissions from ground transportation, and supports Massport's continuing commitment to improve transit access to and from Logan Airport. DEP urges Massport to continue its support of MBTA transit improvements, such as upgrades of the Blue Line stations and implementation of the Silver Line, the AITC and the Urban Ring. DEP looks forward to Massport's updates of these projects through the ESPR. 6.4

Construction Period Impacts and Diesel Retrofit Program

As MEPA is aware, the Central Artery /Tunnel Project, in cooperation with EPA-Region I, EOEA, Northeast States for Coordinated Air Use Management (NESCAUM) and DEP, with assistance from the Manufacturers of Emission Control Association (MECA), has implemented the Clean Air Construction Initiative. This program has retrofitted existing heavy construction equipment used at major public works/infrastructure projects with pollution control devices targeted at reducing diesel emissions and, consequently, reducing the localized adverse health impacts and nuisance conditions they may create. To date, 120 pieces of CA/T Project construction equipment have been retrofitted and another 100 are planned.

In addition to implementation of diesel retrofit activities for the CA/T Project, DEP is actively involved in retrofit projects by MBTA and MWRA and other publicly funded projects. Massport will also implement construction equipment retrofit program. The diesel retrofit industry is rapidly evolving and currently provides a number of options for retrofitting on- and off-road diesel equipment. These options include oxidation catalysts, particulate filters, and the use of ultra low sulfur diesel fuel. In its Section 61 Findings, Massport has committed to participate in the Initiative. DEP is interested in working with Massport to develop options for its diesel retrofit program that will provide the maximum air quality benefits. 6.5

DEP believes improved transit service to Logan Airport is integral to the Commonwealth's goal of reducing emissions from ground transportation, and supports Massport's continuing commitment to improve transit access to and from Logan Airport. DEP urges Massport to continue its support of MBTA transit improvements, such as upgrades and modernization of the Blue Line Stations and implementation of the Silver Line, the AITC and the Urban Ring. DEP looks forward to Massport's updates of these projects though the ESPR.

Sincerely,

Philip Weinberg
Acting Associate Commissioner

cc. Christine Kirby, DEP/BWP
Steve Lipman, DEP/Commissioner's Office

Department of Environmental Protection Philip Weinberg

Code	Topic 1	Topic 2	Comment	Response
6.1	Capacity	Increased	While DEP agrees that the project, and runway 14/32 in particular, will not be the primary factor that will draw additional air traffic to Logan, air travel and passenger demand is projected to increase dramatically. Future annual Environmental Status and Planning Reports (ESPR) submitted to the MEPA Office should continue to report on the relationship between capacity, air passenger demand and air quality.	Comment noted. The ESPR is a state, not federal process. FAA will forward this comment to Massport for its consideration in accordance with state requirements on the next Logan airport ESPR.
6.2	Peak Period Pricing	Benefits	DEP supports Massport's proposal for peak period pricing. DEP recommends that Massport consider wider and more accelerated use of peak period pricing to obtain fuller advantage of that management tool's capability to reduce air pollution by reducing delays caused by over scheduling and other factors.	In its Section 61 Findings, pursuant to the Massachusetts Environmental Policy Act, Massport committed to initiating the rule-making process to implement an enforceable peak period pricing program, or an alternative demand management program with comparable effectiveness, for Logan Airport. The objective of this program will be to avoid or reduce delays associated with overscheduling of Logan Airport's available capacity in good weather conditions. The goal is to have a demand management program in place before overscheduling conditions occur at Logan Airport. The FAA acknowledges that Logan Airport is one of the nation's most delayed airports and that Massport has committed to and will propose to implement a demand management program to reduce overscheduling delays. The FAA expects that any such program that is proposed for implementation will be consistent with applicable Federal law. The FAA is working with the U.S. DOT to establish national guidelines for demand management programs at U.S. airports. As part of this national effort, Logan has been selected as one of three airports to serve as a case study for U.S. airport demand management strategies.
6.3	Air Quality	Air Quality Initiative	Massport has indicated that it will report on the AQI through the ESPR, which are submitted to MEPA yearly. If done properly, this reporting will allow stakeholders, including DEP, to monitor the effectiveness of the AQI. DEP recommends that this reporting include a number of elements including: 1. the level of emission reductions achieved by the AQI as compared to 1999 emission levels for VOC and NOx and other pollutants, as appropriate; 2. the incentives and/or disincentives Massport will use to require and encourage airport users to reduce emissions; 3. an analysis of whether the voluntary approach is working to meet the goals of the AQI; and 4. a detailed description of the public process Massport will initiate with the community and other stakeholders to generate emission credits.	The Air Quality Initiative (AQI) for Logan Airport, which is not related to the Airside Project, was developed by Massport as a strategy for retaining NOx emissions associated with Logan Airport operations at 1999 levels. EOEA approved this program in March 2001 and Massport is fully committed to its implementation. However, since the AQI was published, the aviation industry has undertaken an intense review of the program. The FAA has requested that the program be suspended and that Massport instead work within the EPA/FAA's national stakeholders process. The Air Transport Association, the primary air carrier trade association, has expressed vigorous opposition to the program asserting that implementation of the program would violate federal law. The FAA notes that states are preempted from taking actions to control emissions from aircraft engines. Moreover, the tragic events of September 11th have taken a profound toll on the aviation industry and on Logan Airport, in particular. According to Massport, until financial conditions return to pre-September 11th standards, implementation of the AQI is not feasible. Nonetheless, Massport is committed to the program and the progress of the AQI will be reported on annually in the Logan Airport Environmental Statue Planning Report (ESPR) or its annual update, the Environmental Data Report. The FAA expects that the AQI will be implemented in a manner consistent with applicable federal law.
6.4	Ground Access	Alternatives	DEP urges Massport to continue its support of MBTA transit improvements, such as upgrades of the Blue Line stations and implementation of the Silver Line, the AITC and the Urban Ring. DEP looks forward to Massport's updates of these projects through the ESPR.	Comment noted.

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Department of Environmental Protection Philip Weinberg

Code	Topic 1	Topic 2	Comment	Response
6.5	Mitigation	Construction Air Quality	In its Section 61 Findings, Massport has committed to participate in the Initiative. DEP is interested in working with Massport to develop options for its diesel retrofit program that will provide the maximum air quality benefits.	Comment noted. Massport is working with DEP to develop options for the diesel retrofit program that will provide the maximum air quality benefits. The Logan Airport 1999 ESPR (previously GEIR) reports on Massport's Alternative Fuels Vehicle program and on Massport's efforts to encourage the use of alternative fuel vehicles.

Letter 7

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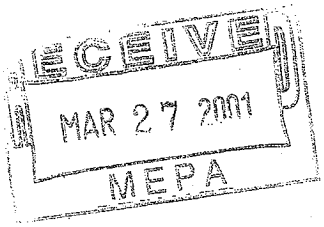
CITY OF BOSTON • MASSACHUSETTS

OFFICE OF THE MAYOR
THOMAS M. MENINO



March 27, 2001

Secretary Robert Durand
The Commonwealth of Massachusetts
Executive Office of Environmental Affairs
251 Causeway Street
Boston, MA 02114

Dear Secretary Durand:

City living sometimes demands that we bear a greater share of the burden for infrastructure, noise, traffic congestion and even air quality. However, implicit in the compact is the idea that government will carefully guard against excessive encroachment and ensure full public disclosure so that City residents' health, safety and quality of life are not unduly compromised.

In the past, you seem to have understood this basic concept and have zealously exercised your authority to ensure that major economic development projects cause no negative environmental impact to a community or its residents. As the question of a new runway at Logan Airport now falls to you, I urge you to apply the same high standards, ask the same tough questions, and conduct the same vigorous, open, public review process to the question of runway 14/32 as you did with the South Boston waterfront and other development projects in Boston.

I am convinced that if you exercise your authority on this question with the same high regard for environmental justice as you have shown in the past, you will conclude that Massport has not provided sufficient answers to basic questions surrounding the actual environmental impact of a new runway.

Despite years of prodding and pleading, Massport's so-called public process has been carefully orchestrated to avoid answering questions or considering alternatives that are

responsible, fair and feasible. My own appointees to a blue-ribbon commission were subjected to a strictly controlled series of lectures and meetings. Approximately 90 separate proposals or requests for information were rejected or ignored.

- We have requested an independent and scientifically reliable air quality study. Massport has refused. 7.1

- We have requested information on passenger studies to determine where, when and how people are getting to Logan. Massport has not provided this information. 7.2

- We have asked Massport to seek a Federal 161 Waiver from the FAA so that it can limit the operations of its airlines. The request was dismissed. 7.3

- We have asked for an independent analysis of the real noise problems created by airplanes over Boston neighborhoods and mitigation to match the findings. The request was dismissed. 7.4

- We have asked repeatedly for regular testing and monitoring of environmental impacts. The requests were dismissed. 7.5

- Finally, for years, we have urged Massport and the state to work with us to conduct a comprehensive, regional, multi-modal transportation plan study so that we can better coordinate our entire transportation infrastructure (highways, railroads, air travel and port facilities), spread the burden more evenly and reduce over-reliance on Logan. 7.6

All of this gets to the real heart of the matter. Far from being roadblocks, the answers we seek and the alternatives we'd like to see pursued prior to any consideration of a new runway are legitimate, deserve to be addressed fully, fairly and impartially and offer Massport a constructive alternative.

Let me be clear that I, like the vast majority of Boston residents, fully recognize and respect the necessity of Logan Airport and its importance the region. We also share the concerns of some members of the business community over delays at Logan and would like to see steps taken to remedy the problem. As Mayor, I have often warned against NIMBY-ism, but I take even greater exception to double standards and institutional arrogance. Accordingly, I am committed to conducting a debate over Logan expansion that is reasoned, fair and productive. I and the residents I represent expect no less in return from Massport or any other state or federal agency.

To date, Massport has refused to provide independent, reliable information about noise, air and ground pollution that already disproportionately affect Boston neighborhoods, and threaten to be compounded (including in minority communities) under the Massport plan. 7.7

At the same time, Massport has refused to consider reasonable alternatives that would demonstrate to residents that the airport has put its own house in order before it demands further concessions from already overburdened communities. A regional, intermodal transportation plan is just one part. Other actions would include working with larger airlines to reduce the number of small aircraft who are causing delays at Logan; consolidating commuter flights; adopting demand management techniques or peak pricing landing fees; and adopting gate-hold demand management procedures to reduce taxiway delays. 7.8 7.9

In closing, I urge you again to commit to an open public review process and apply the same strict standards you have so often in the past. Should you do this, we can finally bring an end to the quality of life redlining that continues to threaten Boston neighborhoods and force Massport to adopt a plan that is more fair and would result in improved service at Logan and throughout the region.

Sincerely,

Thomas M. Menino
Mayor of Boston

Letter 7

Mayor, City of Boston Thomas M. Menino

Code	Topic 1	Topic 2	Comment	Response
7.1	Air Quality	Study	We have requested an independent and scientifically reliable air quality study. Massport has refused.	The Draft EIS/EIR and Supplemental DEIS/FEIR contain air quality analyses that were conducted in accordance with FAA and EPA guidelines. The results have been subject to review by the public as well as other governmental agencies.
7.2	Ground Access	Passenger Survey	We have requested information on passenger studies to determine where, when and how people are getting to Logan. Massport has not provided this information.	This comment is not related to the Airside Project. Massport performs an extensive survey of air passengers every three years. The most recent survey was the Logan Airport 1999 Air Passenger Survey, which is summarized in the 1999 ESPR.
7.3	Alternatives	Part 161	We have asked Massport to seek a Federal 161 Waiver from the FAA so that it can limit the operations of its airlines. The request was dismissed.	There are no waiver provisions in Part 161 of the Federal Aviation Regulations. The FAA's Part 161 process is a difficult process for airports to undertake because of the demanding legal requirements that must be satisfied to obtain approval for access restrictions. Therefore, Massport has not proposed any formal changes to its noise abatement regulations that would require a Part 161 process. However, Massport continues to pursue alternatives. For example, Massport has actively encouraged Logan's major airlines to replace hushkitted aircraft with newer and quieter Stage 3 equipment. In the past year, both Delta and USAirways have replaced hushkitted jets on their New York and Washington shuttle routes from Logan.
7.4	Noise	Part 150 Study	We have asked for an independent analysis of the real noise problems created by airplanes over Boston neighborhoods and mitigation to match the findings. The request was dismissed.	The FAA and Massport believe that the Logan Airside Improvements Planning Project consultants are doing a reasonable and appropriate level of investigation and reporting of the noise impacts associated with the proposed alternatives. The Supplemental DEIS/FEIR has quantified those impacts in terms of numbers of people affected by each alternative, community by community; it also has identified sound insulation as the recommended means of mitigating the impacts. Should the Preferred Alternative be approved and implemented, the FAA and Massport are committed to expanding Logan's current sound insulation program to address affected residences in Chelsea, East Boston, and South Boston that fall within the 65 dB DNL contour.
7.5	Cumulative	Airport vs. Project	We have asked repeatedly for regular testing and monitoring of environmental impacts. The requests were dismissed.	This comment relates to the overall impacts of Logan Airport operations, which are appropriately analyzed by Massport in its Environmental Status and Planning Report (ESPR, formerly GEIR), rather than impacts that would result from the proposed Airside Improvements which are the subject of this Final EIS. The ESPR specifically examines impacts from Logan's landside operations (i.e., motor vehicle traffic, terminal service vehicles, etc.), as well as its airside operations, and summarizes and tracks Massport's mitigation commitments. The ESPR and former GEIR/Annual Updates are specifically incorporated by reference in the Airside Project EIS Documents as background information. Overall, the Preferred Alternative shows small air quality benefits when compared to the No Action Alternative. Emissions of both NOx and VOCs are shown to increase over time because of increased aircraft operations activity at Logan Airport. These emissions are lower with the Preferred Alternative, when compared to the No Action Alternative largely because of improved airfield efficiencies with the proposed Runway 14/32 and the taxiway improvements.
7.6	Regional Transportation	Regional Study	Finally, for years we have urged Massport and the state to work with us to conduct a comprehensive, regional, multi-modal transportation study so that we can better coordinate our entire transportation infrastructure (highways, railroads, air travel and port facilities), spread the burden more evenly and reduce over-reliance on Logan.	Several regional transportation studies undertaken in the early 1990s concluded that expanded roles for regional airports, high-speed rail and infrastructure improvements at Logan Airport were needed to meet the region's long-term intercity transportation needs. Federal, state and local agencies throughout the region share the goal of improving New England's transportation network and have already begun to work, both independently and cooperatively, to achieve that goal. Great strides have been made in the last decade. Regional airports have become meaningful alternatives to Logan Airport for certain market segments. Passengers traveling to and from New York can now choose high-speed rail over air travel. These are significant achievements that resulted from years of planning

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				efforts involving many different agencies. Local airport authorities and the FAA were responsible for significant infrastructure investments at the region's airports. Through individual and cooperative efforts, the regional airports have attracted meaningful airline services and have increased their share of the region's travel demand. Massport has assumed operating responsibility for the Worcester Regional Airport, which is capable of handling more of the region's air travel. In just one year, Massport obtained new air services for the airport, which resulted in a two-fold increase in Worcester's passenger traffic. State governments have undertaken a number of road and commuter rail projects to improve access throughout the region and make regional airports more accessible. The Federal Rail Administration and Amtrak have implemented high-speed rail along the Northeast Corridor, the only active high-speed rail service in the nation. To further the role of regional airports, the FAA, Massport, the Massachusetts Aeronautics Commission, the other five New England states, the Manchester Regional Airport, and the Rhode Island Airport Corporation are conducting the New England Regional Aviation System Plan, a continuation of the 1995 New England Regional Airports Air Service Study. The study will forecast long-term passenger and cargo demand for the entire region, identify operational capacity and environmental constraints to growth, and formulate strategies for maximizing regional airport use and creating a balanced and efficient regional airport network. Regional airport, aviation and transportation planning officials from each of the six New England states will participate in the study. While greater use of the regional airports and high-speed rail will provide relief to Logan Airport, these initiatives fail to address a significant source of Logan's airside delays. The proposed Preferred Alternative provides clear benefits at recent and future traffic levels by reducing preventable delays that occur during northwest wind conditions. Northwest wind delays at Logan Airport, which inconvenience and create unnecessary costs for hundreds of thousands of air passengers each year, cannot be mitigated through regional alternatives. Refer to Section 3.1 of this Final EIS.
7.7	Environmental Justice	Users vs. Impacted Population	…Massport has refused to provide independent, reliable information about noise, air and ground pollution that already disproportionately affect Boston neighborhoods, and threaten to be compounded (including in minority communities) under the Massport Plan.	The EIS Documents contain extensive and appropriate analysis of the affected environment, environmental impacts, benefits and mitigation. The Environmental Justice analysis for the Preferred Alternative is set forth in Section 6.8 of the Supplemental DEIS/FEIR and Section 3.6 of this Final EIS. These analyses meet all applicable requirements. Low-income and minority populations were defined in accordance with Federal Executive Order 12898, the Final US Department of Transportation Order, and the Council on Environmental Quality's guidance on Environmental Justice. In addition, the analysis of low-income populations was expanded to include households at 150 percent of the poverty level and the analysis of minority populations was updated in this Final EIS to reflect Year 2000 Census data on total population, race and ethnic origin at the block level, which was released by the U.S. Census Bureau on March 21, 2001. (The Census Bureau will not begin to release comparable data on income on a state by state basis until June 2002 at the earliest.) While the Census 2000 data show that the minority population of the communities around Logan has increased, particularly in East Boston, the percentage of the population within the 29M Low 65 dB DNL contour that is minority is the same for both the No Action and Preferred Alternative. Furthermore, approximately 34 percent of the Year 2000 population within the 29M Low 65 dB DNL contour for the Preferred Alternative is minority, compared to the total Year 2000 population for Boston, Chelsea, Revere and

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				Winthrop, which is 48 percent minority. Therefore, the Preferred Alternative does not result in a disproportionate adverse impact on minority populations. Based on 1990 Census data, less than two percent of the population within the 65 dB DNL contour for the Preferred Alternative has a household income less than 150 percent of poverty level. The additional area within the 65 dB DNL noise contour associated with the Preferred Alternative includes a predominately Hispanic neighborhood in Chelsea, which is predicted to experience an increase of 0.6 dB or less under the 29M Low fleet, the worst case for noise exposure. Under the FAA standard of 1.5 dB, this change is not a significant adverse impact. The Environmental Justice analyses in both the Supplemental DEIS and the Final EIS confirm that there is no high and adverse disproportionate impact to low-income and minority populations as a result of the Preferred Alternative. Mitigation of the increased noise within the 65 dB DNL contour will be provided to affected communities in the form of residential sound insulation. See Section 4.1.3 of the Final EIS for sound insulation mitigation commitments.
7.8	Alternatives	All Alternatives	…Massport has refused to consider reasonable alternatives that would demonstrate to residents that the airport has put its own house in order before it demands further concessions from already overburdened communities.	The alternatives that were reviewed were identified during both Federal and State processes. The alternative analyses in these EIS documents provide appropriate content for decision-making with respect to the Airside Project.
7.9	Alternatives	Demand Management	Other actions would include working with larger airlines to reduce the number of small aircraft who are causing delays at Logan; consolidating commuter flights; adopting demand management techniques or peak pricing landing fees and adopting gate-hold demand management procedures to reduce taxiway delays.	The FAA acknowledges that Logan Airport is one of the nation's most delayed airports and that Massport has committed to and will propose to implement a demand management program to reduce overscheduling delays. The FAA expects that any such program that is proposed for implementation will be consistent with applicable Federal law. The FAA is working with the U.S. DOT to establish national guidelines for demand management programs at U.S. airports. As part of this national effort, Logan has been selected as one of three airports to serve as a case study for U.S. airport demand management strategies. Also, the FAA, Massport, the Massachusetts Aeronautics Commission, the other 5 New England states, the Manchester Regional Airport, and the Rhode Island Airport Corporation are conducting the New England Regional Aviation System Plan Update, which will assess the potential for additional diversion from Logan. The study will forecast long-term passenger and cargo demand for the entire region, identify operational capacity and environmental constraints to growth, and formulate strategies for maximizing regional airport use and creating a balanced and efficient regional airport network.

Letter 8

CITY OF BOSTON • MASSACHUSETTS

OFFICE OF THE MAYOR
THOMAS M. MENINO

June 6, 2001

John C. Silva, Manager
Environmental Programs
Federal Aviation Administration
Airports Division, ANE-600
New England Region
12 New England Executive Park
Burlington, Massachusetts 01803

Dear Mr. Silva:

RE: Logan Airside Improvements Planning Project

The City Of Boston strongly urges the FAA to reject the Supplemental Draft Environmental Impact Study submitted by the Massachusetts Port Authority regarding the Logan Airside Improvements Project. Attached are the responses of the City of Boston's Transportation, Public Health and Environment Departments and the Boston Redevelopment Authority. These agencies challenge the fundamental assumptions and claims of this report. Important data that can only be derived from scientific study and monitoring of environmental impacts does not exist to validate approval of this project. Furthermore, the citizens of the Boston metropolitan area, particularly the East Boston residential community, are being asked to assume more of the burdens created by expanded airport operations. This project should not proceed without a comprehensive regional transportation plan in place to prudently guide the investment of public dollars and appropriately manage air and ground transportation demands. 8.1 8.2

While for many residents current conditions are a source of concern about health and safety, MassPort proposes expanding capacity. These communities and beyond cannot tolerate any further degradation of the quality of their lives and their neighborhoods. 8.3

Simply stated, a number of our concerns are as follows:

- The proposed reduction of runway approach minima will not improve existing noise or safety conditions. 8.4

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- The air and landside analysis of this project has been segmented. The impacts on both air operations and ground/transportation operations are inextricably linked. 8.5

- The issue of environmental justice must be addressed with the most current data available. MassPort's analysis used outdated l990 Census track information. With current 2000 Census data available, it is clear that there has been significant demographic and socio-economic change in these communities. This change warrants re-consideration of this proposal as these communities will be severely impacted by this expansion program. It compromises Federal Environmental Justice standards to ask these communities to bear all of the burdens of this expansion. 8.6

- It is very apparent from recent news reports that airport delays are a national problem and are not unique to Boston. This issue requires a national response which should include: new technologies; a review of regional demand and improved distribution of flights (including secondary airports); and, require the airlines to participate and seek solutions to lessen impacts on affected communities. Airport expansion plans should not be considered until these alternatives are in place. 8.7

It is our responsibility as public officials to use all available resources to protect the health and well being of citizens. This report does not adequately respond to that charge. I urge the FAA to require further monitoring and scientific study that encompasses the affected communities and NOT approve the proposed reduction in landing minima.

Sincerely,

Thomas M. Menino
Mayor of Boston

Mayor, City of Boston Thomas M. Menino

Code	Topic 1	Topic 2	Comment	Response
8.1	Environmental Justice	Users vs. Impacted Population	The citizens of the Boston metropolitan area, particularly the East Boston residential community, are being asked to assume more of the burdens created by expanded airport operations.	The Environmental Status and Planning Report (formerly the GEIR) process presents annual environmental conditions, assesses the cumulative impacts of recent and predicted levels of operations at landside and airside facilities, and presents and tracks Massport's mitigation commitments. Through the ESPR process, Massport has committed to specific programs to reduce the environmental effects of airport operations.
8.2	Regional Transportation	Regional Study	This project should not proceed without a comprehensive regional transportation plan in place to prudently guide the investment of public dollars and appropriately manage air and ground transportation demands.	Several regional transportation studies undertaken in the early 1990s concluded that expanded roles for regional airports, high-speed rail and infrastructure improvements at Logan Airport were needed to meet the region's long-term intercity transportation needs. Consistent with the basic premise of these studies, federal, state and local agencies throughout the region share the goal of improving New England's transportation network and have already begun to work, both independently and cooperatively, to achieve an improved, integrated regional transportation network. Great strides have been made in the last decade. Regional airports have become meaningful alternatives to Logan Airport for certain market segments and passengers traveling to and from New York can now choose high-speed rail over air travel. These are significant achievements that resulted from years of planning efforts involving many different agencies including the New England states. Local airport authorities and the FAA were responsible for significant infrastructure investments at the region's airports. Through individual and cooperative efforts, the regional airports have attracted meaningful airline services and have increased their share of the region's travel demand. Massport has assumed operating responsibility for the Worcester Regional Airport, which is capable of handling more of the region's air travel. In just one year, Massport obtained new air services for the airport, which resulted in a two-fold increase in Worcester's passenger traffic. State governments have undertaken a number of road and commuter rail projects to improve access throughout the region and make regional airports more accessible. The Federal Rail Administration and Amtrak have implemented high-speed rail along the Northeast Corridor, the only active high-speed rail service in the nation. To further the role of regional airports, the FAA, Massport, the Massachusetts Aeronautics Commission, the other 5 New England states, the Manchester Regional Airport, and the Rhode Island Airport Corporation are conducting the New England Regional Aviation System Plan, a continuation of the 1995 New England Regional Airports Air Service Study. The study will forecast long-term passenger and cargo demand for the entire region, identify operational capacity and environmental constraints to growth, and formulate strategies for maximizing regional airport use and creating a balanced and efficient regional airport network. Regional airport, aviation and transportation planning officials from each of the six New England states will participate in the study. While greater use of the regional airports and high-speed rail will provide relief to Logan Airport, these initiatives fail to address a significant source of Logan's airside delays. The proposed Preferred Alternative provides clear benefits at recent and future traffic levels by reducing preventable delays that occur during northwest wind conditions. Northwest wind delays at Logan Airport, which inconvenience and create unnecessary costs for hundreds of thousands of air passengers each year, cannot be mitigated through regional alternatives. Refer to Section 3.1 of this Final EIS.

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8.3	Capacity	Increased Capacity	While for many residents current conditions are a source of concern about health and safety, MassPort proposes expanding capacity.	By preventing the drop in capacity that currently occurs when northwest winds force Logan to operate to the northwest, Runway 14/32 will increase the amount of time that Logan Airport can operate on three runways. It will therefore increase the average capacity of the airport. It will not, however, increase Logan's normal three-runway capacity of approximately 120 hourly operations that is available around 80 percent of the time. This capacity level is consistent with the FAA's Airport Capacity Benchmarking Report 2001, which states that Logan's good weather capacity is between 118 and 126 hourly operations and that construction of Runway 14/32 will not increase this capacity. Making Logan's normal three-runway capacity level available more often increases the reliability of the airport and reduces delays. Since Runway 14/32 will not increase Logan's normal three-runway capacity, it will not increase aircraft operations or aircraft emissions. In fact, a comparison of the Preferred Alternative and the No Action Alternative for future demand levels shows that the Preferred Alternative results in slightly lower aircraft emissions and reduced noise for the most highly impacted populations in the 75dB and 70dB DNL contours. Refer to Section 3.5 of this Final EIS for more information.
8.4	Reduced Minimums	Safety	The proposed reduction of runway approach minima will not improve existing noise or safety conditions.	The proposed changes in the approach minimums will make the approach procedures flown by pilots more consistent with typical FAA guidance in effect at most other comparable airports. The reduced landing minimums will enhance safety by providing positive instrument guidance at low altitudes, by allowing aircraft to use runways more closely aligned with the prevailing wind during low visibility conditions, and by reducing the probability of missed approaches. Reducing the landing minimums at Logan does not lower the glide slope of arriving aircraft. See Section 3.9.4 of this Final EIS. With the proposed reduced minimums, the percentage of equivalent jet arrival operations would decrease by 0.4 percent on Runway 4 and increase by 0.2 percent on Runway 15 and 0.1 percent on Runway 22L. These small increases in arrival operations would not have a measurable effect on the Day-Night Sound Levels under the approaches.
8.5	Cumulative Impacts	Segmentation	The air and landside analysis of this project has been segmented. The impacts on both air operations and ground/transportation operations are inextricably linked.	In accordance with Council on Environmental Quality (CEQ) regulations and guidance and FAA implementing directives, Section 2.3 of the Final EIS and Section 7.3 of the Supplemental DEIS/FEIR analyzed the past, present, and reasonably foreseeable future actions in the vicinity of Logan Airport and determined that there were no cumulative impacts related to the Airside Project, other than temporary construction-related impacts. The purpose of the Airside Project is to reduce recent and projected levels of airfield congestion and delay and to enhance the safety of aircraft operations at Logan. Massport's ongoing and proposed landside improvements to enhance the efficiency of passenger processing, include terminal modernization, as well as roadway, parking and service area improvements. The landside projects will not affect the design or implementation of the Airside Project, which has independent utility, nor will the Airside Project improvements affect the design or implementation of any of the landside projects. All airside and landside projects, where required, will continue to be the subject of comprehensive environmental analysis that examines cumulative environmental impacts. FAA also examines pertinent GEIR/ESPR documents which provide cumulative impact analysis of Logan operations, impacts and mitigation.
8.6	Environmental Justice	2000 Census Data	The issue of environmental justice must be addressed with the most current data available. Massport's analysis used outdated 1990 Census track information. With current 2000 Census data available, it is clear that there has been significant demographic and socio-economic change in these communities.	The 2000 Census data regarding minority populations was not available when the Supplemental DEIS/FEIR went to print in March 2001. The Environmental Justice analysis relative to minority populations has been updated in this Final EIS to reflect Year 2000 Census data on total population, race and ethnic origin at the block level, which was released by the U.S. Census Bureau on March 21, 2001. (The Census Bureau will not begin to release comparable data on income on a state by state basis until June 2002 at the earliest.) While the Census 2000 data show that the

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				minority population of the communities around Logan has increased, particularly in East Boston, the percentage of the population within the 29M Low 65 dB DNL contour that is minority is the same for both the No Action and Preferred Alternative. Furthermore, approximately 34 percent of the Year 2000 population within the 29M Low 65 dB DNL contour for the Preferred Alternative is minority, compared to the total Year 2000 population for Boston, Chelsea, Revere and Winthrop, which is 48 percent minority. Therefore, the Preferred Alternative does not result in a disproportionate adverse impact on minority populations. Refer to Section 3.6 of this Final EIS for additional information.
8.7	Alternatives	Airspace Improvement	It is very apparent from recent news reports that airport delays are a national problem and are not unique to Boston. This issue requires a national response which should include: new technologies; a review of regional demand and improved distribution of flights (including secondary airports); and, require the airlines to participate and seek solutions to lessen impacts on affected communities. Airport expansion plans should not be considered until these alternatives are in place.	The FAA is continually evaluating alternatives to increase the efficiency of the national airspace system, and new runways at major air carrier airports are part of a balanced effort to address national delays. This national effort also includes investigation of new technologies, regionalization, and demand management initiatives. However, the FAA's national initiatives will not prevent the decline in Logan Airport's capacity that occurs under northwest wind conditions. The Airside Project is not an airport expansion plan, as the Preferred Alternative will not increase the normal three-runway capacity of the airport. While Logan Airport's normal airfield capacity is approximately 120 operations per hour, the airport cannot maintain this capacity during moderate to strong northwest wind conditions because of a deficiency in the airfield layout. During these conditions, Logan can only operate on one- or two-runway configurations compared to the typical three-runway configurations used in most good weather conditions. Construction of Runway 14/32 is the only measure that would allow Logan Airport to maintain its normal operating capacity during northwest wind conditions.

Letter 9

Boston City Council

Maura A. Hennigan
District 6
635-4217

June 6, 2001

John C. Silva
Manager, Environmental Programs
Airports Division, ANE-600
New England Region
12 New England Executive Park
Burlington, MA 01803

Dear Mr. Silva,

For a number of years I have been a vocal opponent of expansion at Logan Airport, including the most recent proposal to build Runway 14/32 and I am writing to oppose this expansion. This opposition stems from both environmental concerns and the overall impact on the City of Boston, its citizens and quality of life. I have spoken at numerous local forums, including at the State House and the Radisson Hotel where I testified in opposition to the runway expansion and have attended meetings across the city to provide information to the Boston region.

Significant concerns exist surrounding the Runway expansion, many from various community groups and organizations. The environmental impact of Runway 14/32 would negatively affect Boston's neighborhoods including but not limited to East Boston, Roxbury, Dorchester, South Boston, West Roxbury, Charlestown, Roslindale and Jamaica Plain; much of that impact not entirely known. 9.1

According to the Conservation Law Foundation, "While an extremely valuable asset for Boston and the region, Logan airport has serious environmental impacts, ranging from the noise impacts of planes to the motor vehicle air pollution attributable to the airport; New England's largest generator of motor vehicle trips. CLF is very skeptical of the need for either expanded runway capacity at Logan or a new regional airport, either to reduce delays or accommodate passenger growth. The sought-after benefits of such facilities can be obtained through less environmentally harmful means: namely, if Logan operated more efficiently (through "peak hour pricing" or other runway pricing reforms) and better use was made of intercity rail service as well as other regional airports which travelers could reach by environmentally responsible modes of transportation including rail."

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And from CARE (Communities Against Runway Expansion):

"According to Massport, Runway 14/32 would reduce delays related to northwest winds; however, approximately 80% of delays are due to adverse weather conditions, mechanical problems, and traffic snags at other airports. Even with the new runway, delays will reach or surpass current levels by the year 2005. Massport describes the new runway as unidirectional and over-the-water, as this makes it sound benign. However, Massport cannot guarantee that the runway would remain unidirectional; that is the prerogative of the FAA (Federal Aviation Administration), and the FAA refuses to make such a commitment. Furthermore, most flights, after they have been initially diverted over water, will turn and fly over close-in communities." 9.2 9.3 9.4

The runway will be environmentally detrimental to communities within a wide radius of the Boston metropolitan area. An increase in asthma has been noted, especially in areas surrounding the airport but impacting residents citywide. The environmental justice issues, including the disproportionate impact from noise and pollution on heavily populated minority and low-income residents should be considered. 9.5

Creating an additional runway is seen as a "band-aid" approach: a short-term solution to a long-term problem. A more workable plan would be to analyze other solutions: 9.6

- Utilize regional airport alternatives such as Manchester, Hanscom,Worcester and T.F Green. 9.7
- Explore increased use of high-speed rail travel; e.g. Acela.

The existing runway space could be improved upon. Statistics show that approximately 90% of Logan's passengers are accommodated on about half of the flights in and out of the airport. In addition, the proposed new runway would improve operations for only limited wind conditions that develop about 10 times a year, most likely used by planes landing and taking off toward the east. The runway would not be utilized by many regional jets. 9.8

City of Boston residents and surrounding areas deserve a workable solution to Logan airport's issues concerning passenger growth and delay reduction. For the above reasons, I want to state my strong long-term opposition to the expansion of Runway 14/32.

Sincerely,

Maura A. Hennigan

Maura A. Hennigan
Boston City Council

Code	Topic 1	Topic 2	Comment	Response
9.1	Runway 14/32	Impacts	The environmental impact of Runway 14/32 would negatively affect Boston's neighborhoods including but not limited to East Boston, Roxbury, Dorchester, South Boston, West Roxbury, Charlestown, Roslindale and Jamaica Plain; much of that impact not entirely known.	The predicted increase in flights using Runways 27 and 33L for departure that would occur with the construction of Runway 14/32 has generated numerous public comments. While the increased departures to the west and northwest are consistent with the goals of Logan's Preferential Runway Advisory System (PRAS), community representatives have withdrawn their support for the existing PRAS system. With support from FAA, Massport has committed in its Section 61 Findings, pursuant to the Massachusetts Environmental Policy Act,to work with the Community Advisory Committee (CAC) to reassess the PRAS program. In order to prevent a major change in Logan's runway utilization pending this reassessment of PRAS, the FAA in this Final EIS is proposing to restrict Runway 14/32 for use only during northwest or southeast winds of 10 knots or greater. In proposing this restriction, the FAA expects that the principal delay reduction benefits of the runway would be realized and that runway utilization at Logan Airport would remain consistent with recent patterns. See Section 3.8 of the Final EIS for a discussion of the wind restriction analysis and Section 4.1.2 for operational implementation of the restriction.
9.2	Delay	Band Aid	According to Massport, Runway 14/32 would reduce delays related to northwest winds; however, approximately 80% of delays are due to adverse weather conditions, mechanical problems, and traffic snags at other airports.	The Airside Project alternatives were designed to reduce the portion of delays that result from constraints at Logan Airport, including the lack of a third runway in northwest winds and taxiway congestion. There is no single solution that will eliminate all sources of airside delays at Logan Airport. The Preferred Alternative, specifically Runway 14/32, addresses delays that occur during northwest winds and provides short-term and long-term delay reduction benefits. The sooner airside efficiencies are implemented, the more benefits will accrue over time. Refer to response to Comment 9.3 and Section 4.6 of the Supplemental DEIS/FEIR.
9.3	Delay	Band Aid	Even with the new runway, delays will reach or surpass current levels by the year 2005.	There is no single solution that will eliminate all sources of airside delays at Logan Airport. The Preferred Alternative, specifically Runway 14/32, addresses delays that occur during northwest winds and provides short-term and long-term delay reduction benefits. If no actions are taken, runway-related delays could increase from 120,000 annual hours in 1998 to as high as 333,000 under a 37.5M High Fleet scenario. The Preferred Alternative produces immediate and long-term benefits by lowering runway delays by 38,000 hours under 1998 conditions, and by as much as 94,000 hours in the future 37.5M High Fleet scenario. The sooner airside efficiencies are implemented, the more benefits will accrue over time. Section 4.6 of the Supplemental DEIS/FEIR shows that delay reduction benefits increase over time as traffic increases.
9.4	Runway 14/32	Unidirectional Commitment	Massport cannot guarantee that the runway would remain unidirectional; that is the prerogative of the FAA (Federal Aviation Administration), and the FAA refuses to make such a commitment. Furthermore, most flights, after they have been initially diverted over water, will turn and fly over close-in communities."	The Runway 14/32 concept under review allows unidirectional operations only (i.e., all aircraft arrivals would occur over Boston Harbor to the Runway 32 approach and all departures would initiate from the Runway 14 heading out over Boston Harbor). Massport will light and stripe Runway 14/32 to accommodate unidirectional operations only. The unidirectional limitations of Runway 14/32 allow maximum use of over-water operations and thereby preclude operational impacts over residential areas. FAA approval under NEPA will allow Runway 14/32 to proceed only on a basis consistent with the stated unidirectional limitations. The location of proposed Runway 14/32 involves physical limitations that reinforce the unidirectional requirements of that improvement concept. The Hyatt Hotel and Conference Center, which is 174 feet high, is within 1,300 feet of the Runway 14. The location of the Hyatt Hotel and Conference Center obstructs applicable FAA approach surface requirements, thereby precluding arrivals from the west to Runway 14. Another factor limiting westerly operations on Runway 14/32 is the lack of available facilities to allow aircraft to taxi to the Runway 32 end for departure. Refer to Section 8.5 of the Supplemental DEIS/FEIR and to Section 4.1.1 of this Final EIS for a discussion of enforcement of the unidirectional limitation. The flight track monitoring report in the 1999 ESPR for April 1999 through

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				September 1999 indicates that approximately 90 percent of 15R jet departures cross back over shore at an altitude above 6,000 feet. Similar performance was modeled for Runway 14 jet departures. Furthermore, jet aircraft departing from Runways 15R and 14 cross land much further from the airport than jet departures from other runway ends. The Runway 32 arrivals follow flight paths parallel to those for Runway 33L. The Runway 14 flight tracks which turn inside of the harbor are commuter aircraft departures that are typically quieter than mainline jet aircraft.
9.5	Environmental Justice	Impacts	The environmental justice issues, including the disproportionate impact from noise and pollution on heavily populated minority and low-income residents should be considered,	The Environmental Justice analysis for the Preferred Alternative is set forth in Section 6.8 of the Supplemental DEIS/FEIR and Section 3.6 of this Final EIS. These analyses meet all applicable requirements. Low-income and minority populations were defined in accordance with Federal Executive Order 12898, the Final US Department of Transportation Order, and the Council on Environmental Quality's guidance on Environmental Justice. In addition, the analysis of low-income populations was expanded to include households at 150 percent of the poverty level and the analysis of minority populations was updated in this Final EIS to reflect Year 2000 Census data on total population, race and ethnic origin at the block level, which was released by the U.S. Census Bureau on March 21, 2001. (The Census Bureau will not begin to release comparable data on income on a state by state basis until June 2002 at the earliest.) While the Census 2000 data show that the minority population of the communities around Logan has increased, particularly in East Boston, the percentage of the population within the 29M Low 65 dB DNL contour that is minority is the same for both the No Action and Preferred Alternative. Furthermore, approximately 34 percent of the Year 2000 population within the 29M Low 65 dB DNL contour for the Preferred Alternative is minority, compared to the total Year 2000 population for Boston, Chelsea, Revere and Winthrop, which is 48 percent minority. Therefore, the Preferred Alternative does not result in a disproportionate adverse impact on minority populations. Based on 1990 Census data, less than two percent of the population within the 65 dB DNL contour for the Preferred Alternative has a household income less than 150 percent of poverty level. The additional area within the 65 dB DNL noise contour associated with the Preferred Alternative includes a predominately Hispanic neighborhood in Chelsea, which is predicted to experience an increase of 0.6 dB or less under the 29M Low fleet, the worst case for noise exposure. Under the FAA standard of 1.5 dB, this change is not a significant adverse impact. The Environmental Justice analyses in both the Supplemental DEIS and the Final EIS confirm that there is no high and adverse disproportionate impact to low-income and minority populations as a result of the Preferred Alternative. Mitigation of the increased noise within the 65 dB DNL contour will be provided to affected communities in the form of residential sound insulation. See Section 4.1.3 of the Final EIS for sound insulation mitigation commitments.
9.6	Delay	Band Aid	Creating an additional runway is seen as a "band-aid" approach: a short-term solution to a long-term problem.	Refer to response to Comment 9.3.
9.7	Regional Transportation	Alternatives	A more workable plan would be to analyze other solutions: 1. Utilize regional airport alternatives such as Manchester, Hanscom, Worcester and T.F Green. 2. Explore increased use of high-speed rail travel; e.g. Acela.	Several regional transportation studies undertaken in the early 1990s concluded that expanded roles for regional airports, high-speed rail and infrastructure improvements at Logan Airport were needed to meet the region's long-term intercity transportation needs. Federal, state and local agencies throughout the region share the goal of improving New England's transportation network and have already begun to work, both independently and cooperatively, to achieve that goal. Great strides have been made in the last decade. Regional airports have become meaningful alternatives to Logan Airport for certain market segments. Passengers traveling to and from New York can now choose high-speed rail over air travel.

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				These are significant achievements that resulted from years of planning efforts involving many different agencies. Local airport authorities and the FAA were responsible for significant infrastructure investments at the region's airports. Through individual and cooperative efforts, the regional airports have attracted meaningful airline services and have increased their share of the region's travel demand. Massport has assumed operating responsibility for the Worcester Regional Airport, which is capable of handling more of the region's air travel. In just one year, Massport obtained new air services for the airport, which resulted in a two-fold increase in Worcester's passenger traffic. State governments have undertaken a number of road and commuter rail projects to improve access throughout the region and make regional airports more accessible. The Federal Rail Administration and Amtrak have implemented high-speed rail along the Northeast Corridor, the only active high-speed rail service in the nation. To further the role of regional airports, the FAA, Massport, the Massachusetts Aeronautics Commission, the other five New England states, the Manchester Regional Airport, and the Rhode Island Airport Corporation are conducting the New England Regional Aviation System Plan, a continuation of the 1995 New England Regional Airports Air Service Study. The study will forecast long-term passenger and cargo demand for the entire region, identify operational capacity and environmental constraints to growth, and formulate strategies for maximizing regional airport use and creating a balanced and efficient regional airport network. Regional airport, aviation and transportation planning officials from each of the six New England states will participate in the study. While greater use of the regional airports and high-speed rail will provide relief to Logan Airport, these initiatives fail to address a significant source of Logan's airside delays. The proposed Preferred Alternative provides clear benefits at recent and future traffic levels by reducing preventable delays that occur during northwest wind conditions. Northwest wind delays at Logan Airport, which inconvenience and create unnecessary costs for hundreds of thousands of air passengers each year, cannot be mitigated through regional alternatives. Refer to Section 3.1 of this Final EIS.
9.8	Regional Jets	Runway 14/32 Utilization	The runway would not be utilized by many regional jets.	The FAA performed an independent assessment of the regional jet issue and provided appropriate assumptions for the airfield simulation and delay analysis. These RJ utilization assumptions were further confirmed by MITRE in the Final EIS. See Section 3.7 and Appendix J of this Final EIS for the MITRE analysis. Most of the regional jets forecast to use Logan Airport in the future are capable of landing on a 5,000 foot runway. Of the 184,000 regional jets in the 37.5M High RJ fleet, 43,000 are Dornier 328Jets, 36,000 are CRJs, and 100,000 are Embraer 135/145s. The remaining regional jets are larger 70-seat models that were assumed to be incapable of landing on Runway 32. Assuming that the Dornier 328 Jets could land under any conditions and that the Embraers could land under dry conditions (which occur 88 percent of the time, during northwest wind conditions) approximately 131,000 regional jets, or 71 percent of the future regional jet, are able to land on Runway 32. This constitutes most of the regional jets forecasts to use Logan Airport in the future. Using those same assumptions, approximately 79 percent of Logan Airport's recent regional jet operations (June 2001) could land on Runway 32. Several of the largest regional carriers that operate regional jets at Logan Airport, including American Eagle and ACJet (a Delta Connection carrier), have provided letters confirming their intentions to use Runway 14/32 when it becomes operational. Refer to Appendix F of this Final EIS for letters from

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				these airlines as well as other airlines and the Air Transport Association.

Letter 10

Boston City Council
Stephen J. Murphy
City Councillor At-Large

April 24, 2001

Office of Environmental Affairs
Attention: MEPA Office
Mr. Arthur Pugsley -- EOEA No. 10458
251 Causeway Street
Boston, MA 02114

John C. Silva
Manager, Environmental Programs
Airports Division, ANE-600
FAA New England Region
12 New England Executive Park
Burlington, MA 01803

Sirs:

I write to reiterate my strong opposition to the proposed Runway 14/32 at Logan Airport. The Boston City Council has strenuously opposed this project from the beginning siting concerns for our neighborhoods that bare the burden of smog, air pollution and jet engine residue and increased traffic. The entire process regarding the future of air travel to and from the Boston area including expansion or relocation of air traffic to meet the needs of travelers and the residents of this City has been a sham.

I strongly urge you to reject this proposal in favor of a real regional solution. Examples that come to mind are THE PORT AUTHORITY'S successful operation of three international airports for the NYC area, JFK, LaGuardia and Newark, and Washington DC's full use facilities of Ronald Reagan and Baltimore/Washington International. These municipalities obviously planned ahead and offered balanced, reasonable, regional solutions to the problem that MASSPORT currently faces.

In the interest of fairness we strongly urge you to seek a real, regional solution that emcompasses expanded uses of T.F.Green, Manchester, Hanscom Air Force Base, Pease Air Force base and Worcester's regional airport, as part of a comprehensive, overall solution. This well planned and equitable approach would be a far more successful solution to meet the needs of travelers without destroying the quality of life in historic Boston's neighborhoods. 10.1

Sincerely,

Stephen J. Murphy
City Councillor At-Large

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Letter 10

Boston City Council Stephen J. Murphy

Code	Topic 1	Topic 2	Comment	Response
10.1	Regional Transportation	Alternatives	In the interest of fairness we strongly urge you to seek a real, regional solution that encompasses expanded uses of T.F.Green, Manchester, Hanscom Field, Pease International Tradeport [Air Force Base] and Worcester's regional airport, as part of a comprehensive, overall solution.	Several regional transportation studies undertaken in the early 1990s concluded that expanded roles for regional airports, high-speed rail and infrastructure improvements at Logan Airport were needed to meet the region's long-term intercity transportation needs. Federal, state and local agencies throughout the region share the goal of improving New England's transportation network and have already begun to work, both independently and cooperatively, to achieve that goal. Great strides have been made in the last decade. Regional airports have become meaningful alternatives to Logan Airport for certain market segments. Passengers traveling to and from New York can now choose high-speed rail over air travel. These are significant achievements that resulted from years of planning efforts involving many different agencies. Local airport authorities and the FAA were responsible for significant infrastructure investments at the region's airports. Through individual and cooperative efforts, the regional airports have attracted meaningful airline services and have increased their share of the region's travel demand. Massport has assumed operating responsibility for the Worcester Regional Airport, which is capable of handling more of the region's air travel. In just one year, Massport obtained new air services for the airport, which resulted in a two-fold increase in Worcester's passenger traffic. State governments have undertaken a number of road and commuter rail projects to improve access throughout the region and make regional airports more accessible. The Federal Rail Administration and Amtrak have implemented high-speed rail along the Northeast Corridor, the only active high-speed rail service in the nation. To further the role of regional airports, the FAA, Massport, the Massachusetts Aeronautics Commission, the other five New England states, the Manchester Regional Airport, and the Rhode Island Airport Corporation are conducting the New England Regional Aviation System Plan, a continuation of the 1995 New England Regional Airports Air Service Study. The study will forecast long-term passenger and cargo demand for the entire region, identify operational capacity and environmental constraints to growth, and formulate strategies for maximizing regional airport use and creating a balanced and efficient regional airport network. Regional airport, aviation and transportation planning officials from each of the six New England states will participate in the study. While greater use of the regional airports and high-speed rail will provide relief to Logan Airport, these initiatives fail to address a significant source of Logan's airside delays. The proposed Preferred Alternative provides clear benefits at recent and future traffic levels by reducing preventable delays that occur during northwest wind conditions. Northwest wind delays at Logan Airport, which inconvenience and create unnecessary costs for hundreds of thousands of air passengers each year, cannot be mitigated through regional alternatives. Refer to Section 3.1 of this Final EIS.

Letter 11

AP

Francis "Mickey" Roache

Boston City Councillor At-Large

RECEIVED

MAY 23 2001

MEPA

May 14, 2001

Mr. Robert Durand, Secretary of Environmental Affairs
Attention MEPA Office
Mr. Arthur Pugsley – EOEA No. 10458
251 Causeway Street
Boston, MA 02114

Dear Secretary Durand:

I am writing to offer comments on the Logan Airside Improvement Planning Project's Supplemental Draft Environmental Statement and Final Environmental Impact Report. ("Supplemental Draft EIS/Final EIR")

Throughout its existence, Logan International Airport has been a critical part of the local and regional economy as well as a hub for regional transportation needs. Unfortunately, along with this, it has been an environmental and public health burden that has negatively impacted residents of the surrounding communities. While termed an Airside Improvement Plan and promoted as a remedy to reduce delays, it is abundantly clear that the project will ultimately support increased traffic, which is something that the people of these communities can not and should not have to accept. 11.1

The Study forecasts a rise in passenger trips by ten million per year over approximately the next decade, whether there is expansion or not, so any benefits gained by a reduction in delays will presumably be offset by these increases. Even with a new runway, Logan Airport will be unable to handle increases of such magnitude and delays will continue to be a problem. The impact that the airport currently has on residents in nearby communities in terms of ill health and decreased quality of life will only be exacerbated when these predictions are realized, and it is clear that a more permanent alternative must be determined. The report mentions a growing New England economy. Consequently, any permanent solution should be region-wide, and not fixated on a local, band-aide sized remedy. 11.2 11.3 11.4

I appreciate the critical role that Logan International Airport plays in the local and regional economy, and understand why Massport would promote their Airside Improvement Plan as a viable alternative to the current delay problems. However, what is most apparent and tangible are the deleterious effects that Logan has on the health and well being of our local communities. The report indicates that increases are inevitable, therefore it is imperative that we focus on a permanent, equitable solution to this issue. Problems at Logan Airport are not going away, and adding a runway that accommodates increased capacity is an affront to the people who have lived with varied disruptions these last decades.

Data provided in the Supplemental Draft EIS/Final EIR unfortunately does not convince me that the Airport Improvement Plan is the most reasonable course of action towards decreasing the harmful impacts of Logan Airport. I feel that other options should be more closely reviewed, and therefore, respectfully urge that this report be rejected. Thank you for this opportunity to express my concern.

Sincerely,

Francis M. Roache

Francis M. Roache
Boston City Councillor-At-Large

New City Hall, One City Hall Square, Boston, MA 02201
Tel. # 635-3115 Fax # 635-2355

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11.1	Capacity	Increased Capacity	While termed an Airside Improvement Plan and promoted as a remedy to reduce delays, it is abundantly clear that the project will ultimately support increased traffic.	By preventing the drop in capacity that currently occurs when northwest winds force Logan to operate to the northwest, Runway 14/32 will increase the amount of time that Logan Airport can operate on three runways. It will therefore increase the average capacity of the airport. It will not, however, increase Logan's normal three-runway capacity of approximately 120 hourly operations that is available around 80 percent of the time. This capacity level is consistent with the FAA's Airport Capacity Benchmarking Report 2001, which states that Logan's good weather capacity is between 118 and 126 hourly operations and that construction of Runway 14/32 will not increase this capacity. Making Logan's normal three-runway capacity level available more often increases the reliability of the airport and reduces delays. Since Runway 14/32 will not increase Logan's normal three-runway capacity, it will not increase aircraft operations or aircraft emissions. In fact, a comparison of the Preferred Alternative and the No Action Alternative for future demand levels shows that the Preferred Alternative results in slightly lower aircraft emissions and reduced noise for the most highly impacted populations in the 75dB and 70dB DNL contours. Refer to Section 3.5 of this Final EIS for more information.
11.2	Delay	Band Aid	The Study forecasts a rise in passenger trips by ten million per year over approximately the next decade, whether there is expansion or not, so any benefits gained by a reduction in delays will presumably be offset by these increases.	The Logan Airside Project does not forecast Logan passenger trips to increase by ten million per year over the next 10 years. The updated long-term forecast presented in the SDEIS is for Logan passenger demand to increase from 27.4 million passengers in 2000 to 37.5 million passengers by 2015. The Airside analysis shows that Logan Airport can accommodate various levels of aircraft operations associated with 37.5 million passengers with fewer delays if the Preferred Alternative is implemented. Based on simulation modeling, Logan Airport experienced 120,000 hours of runway-related delays in 1998. If no actions are taken, runway-related delays could grow as high as 333,000 under a 37.5M High Fleet scenario. The Preferred Alternative produces immediate and long-term benefits by lowering runway delays by 38,000 hours under 1998 conditions, and by as much as 94,000 hours in the future 37.5M High Fleet scenario. The sooner airside efficiencies are implemented, the more benefits will accrue over time. Section 4.6 of the Supplemental DEIS/FEIR shows that delay reduction benefits increase over time as traffic increases.
11.3	Health	Impacts	The impact that the airport currently has on residents in nearby communities in terms of ill health and decreased quality of life will only be exacerbated when these predictions are realized, and it is clear that a more permanent alternative must be determined.	For all future fleet scenarios, the Airside EIS analysis shows that the Preferred Alternative, compared to the No Action alternative, will result in certain reductions in noise exposure and air quality emissions in nearby communities.
11.4	Regional Transportation	Alternatives	Any permanent solution should be region-wide, and not fixated on a local, band-aide sized remedy.	The FAA and Massport are both active proponents of regional efforts to improve the air transportation system. Several regional transportation studies undertaken in the early 1990s recommended expanded roles for regional airports, and development of high-speed rail as well as infrastructure improvements at Logan Airport for meeting the region's future travel needs. Federal, state and local agencies throughout the region share the goal of improving New England's transportation network and have already begun to work, both independently and cooperatively, to achieve that goal. Great strides have been made in the last decade. Regional airports have become meaningful alternatives to Logan Airport for certain market segments and passengers traveling to and from New York can now choose high-speed rail over air travel. To further the role of regional airports, the FAA, Massport, the Massachusetts Aeronautics Commission, the other five New England states, the Manchester Regional Airport, and the Rhode Island Airport Corporation are conducting the New England Regional Aviation System Plan, a

Code	Topic 1	Topic 2	Comment	Response
				continuation of the 1995 New England Regional Airports Air Service Study. The study forecast long-term passenger and cargo demand for the entire region, identify operational capacity and environmental constraints to growth, and formulate strategies for maximizing regional airport use and creating a balanced and efficient regional airport network. Regional airport, aviation and transportation planning officials from each of the six New England states will participate in the study. While greater use of the regional airports and high-speed rail will provide relief to Logan Airport, these initiatives fail to address a significant source of Logan's airside delays. The Preferred Alternative provides clear benefits at recent and future traffic levels by reducing preventable delays that occur during northwest wind conditions. Northwest wind delays at Logan Airport, which inconvenience and create unnecessary costs for hundreds of thousands of air passengers each year, cannot be mitigated through regional alternatives. Refer to response to Comment 11.2.

Letter 12

Paul J. Scapicchio ■ Boston City Council
District 1
New City Hall • One City Hall Square • Boston, Massachusetts 02201
617-635-3200
FAX: 617-635-4203

June 4, 2001

John Silva
Manager, Environmental Programs
Airports Division, ANE-600
New England Region
12 New England Executive Park
Burlington, MA 01803

Dear Mr. Silva:

I am writing to express my opposition to the Logan Airside Improvement Planning Project as transmitted in the Supplemental Draft Environmental Impact Statement/Final Environmental Impact report by the Massachusetts Port Authority and the Federal Aviation Administration.

My comments will be directed at this project which proposes to expand the airside facilities of Logan Airport with two physical additions to the airport, Runway 14/32 and a centerfield taxiway. It also proposes modifications to the existing instrument landing system by lowering the present minimums on runways 22L, 15R, and 27. I charge that these proposals would increase the airside capacity of Logan Airport and resultantly increase the high levels of noise, air pollution, and vehicular traffic to the detriment of the neighboring communities. 12.1

The proposed new runway and centerfield taxiway would expand already crowded Logan Airport since they would increase practical capacity in all wind conditions. The new runway would be designed for small planes leaving other runways for larger aircraft. Large jets need less space between them for runway operations, thus facilitating much greater flight volumes on existing runways. Since there is no cap on overall flights, there is no protection against this increased capacity being used for more flights. This increase in total operations, will significantly raise the noise and air pollution impacts in East Boston, Chelsea, South Boston, many northwest communities and the communities beneath the Runway 27 flightpath. The increased noise burden will mean sleep disturbance, reduced productivity, decreased home enjoyment, and other reductions in quality of life.

Air pollution and toxic emissions will also grow as the proposed 9300 foot centerfield taxiway would allow more aircraft to push back from gates and idle on the taxiway while 12.2

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waiting to take off. The increase in ground transportation to and from Logan would exacerbate the already overburdened local communities with more severe traffic problems.

I find much of Massport's plan to be flawed and misguided. Philadelphia International Airport built a similar 5000 foot runway to deal with congestion problems without delivering the promised reductions in delays. Regional jets, by and large, do not use the runway due to its short length. Similar results have been experienced at Baltimore Washington International Airport. Thus, Massport has overestimated the use of the proposed Runway 14/32 in their modeling. The shifting of operations from the existing 3-runway combinations will be considerably less than projected. This will mean Massport's projections of reductions in delays is overstated. It also will mean that many operations will not shift to over-water flight paths and the projected noise benefits will not be met. Massport described the new runway as unidirectional and over the water. However, Massport cannot guarantee that the runway will remain unidirectional because only the FAA has the power to deliver this guarantee and has refused to make such a commitment. Furthermore, most flights which are initially diverted over water, will turn and fly over nearby communities. 12.3 12.4

Demand-management strategies need to be put in place at Logan Airport. Massport estimates that peak-period pricing would reduce delays substantially more than a new runway. Charging airlines higher fees for flights during congested travel times discourages overscheduling. A higher, flat fee during peak periods will encourage the use of larger jets which carry more passengers. Small aircraft account for almost half of Logan's flights but carry less than ten percent of its passengers. The SDEIS/FEIR relies primarily on peak period pricing as a demand management tool, but proposes to defer its implementation. Without peak period pricing and scheduling changes, future delays will expand drastically in the future. 12.5

Massachusetts needs a comprehensive, regional plan for meeting the transportation needs of our state. Logan is already over capacity and cannot be further expanded. Concentrating on Logan Airport, rather than regionalization of our transportation system, does not serve the demands of the State. It will result in delays and severe congestion on our roadways, air and noise pollution, and safety concerns without providing a solution. We have large capacity in our regional airport system and our rail system. We must shift demand to non-air travel alternatives as well as make further use of our regional airports. We can promote this by providing Logan Express bus service between Braintree, Woburn and Framingham terminals and Providence, Manchester, Hartford and Worcester Airports. More must also be done to promote membership on Amtrak's high speed Acela service. A link between North and South Stations would boost this rail use. 12.6 12.7 12.8

Massport fails to acknowledge the lack of environmental justice in its plan and proposes no comprehensive health study for Logan's bordering communities. Massport's study does not recognize that the people of Boston and other communities live day to day with the harmful effects of the airport's operations. The local populace has borne an unfair burden of noise, traffic, and air pollution for years. Residents, living near Logan, bear the 12.9 12.10

burden but don't reap the benefits. Massport's study has incorrectly relied on outdated census data from 1990. According to 2000 census figures, 50% of the residents of Boston are people of color, and 50.3% of East Boston residents are people of color compared to 24% in 1990. Massport's proposal violates the law as stated in the Federal Environmental Justice standard. It would be irresponsible to issue a certificate based on this old, inaccurate data. 12.11

Finally, an independent analysis of the SDEIS/FEIR was requested and provided by the Consultants to the Massport Logan Community Advisory Committee (CAC). The Report of the Consultants to the CAC document is full of data that refutes the data in the SDEIS/FEIR in many critical areas. These discrepancies further demonstrate the inadequacy of the document and support the arguments of the burdened close-in communities.

To summarize, I strongly recommend that you reject the Logan SDEIS/FEIR and not allow the Logan Airside Improvements Planning Project to go forward. Massport must pursue a regional transportation plan, put a cap on further expansion, and conduct a comprehensive health study which identifies and mitigates the health impacts of Logan Airport on its neighboring communities.

Thank you for taking my views into consideration.

Sincerely,

Paul Scapicchio

Paul Scapicchio

Code	Topic 1	Topic 2	Comment	Response
12.1	Capacity	Increased Capacity	I charge that these proposals would increase the airside capacity of Logan Airport and resultantly increase the high levels of noise, air pollution, and vehicular traffic to the detriment of the neighboring communities. The proposed new runway and centerfield taxiway would expand already crowded Logan Airport since they would increase practical capacity in all wind conditions.	By preventing the drop in capacity that currently occurs when northwest winds force Logan to operate to the northwest, Runway 14/32 will increase the amount of time that Logan Airport can operate on three runways. It will therefore increase the average capacity of the airport. It will not, however, increase Logan's normal three-runway capacity of approximately 120 hourly operations that is available around 80 percent of the time. This capacity level is consistent with the FAA's Airport Capacity Benchmarking Report 2001, which states that Logan's good weather capacity is between 118 and 126 hourly operations and that construction of Runway 14/32 will not increase this capacity. Making Logan's normal three-runway capacity level available more often increases the reliability of the airport and reduces delays. Since Runway 14/32 will not increase Logan's normal three-runway capacity, it will not increase aircraft operations or aircraft emissions. In fact, a comparison of the Preferred Alternative and the No Action Alternative for future demand levels shows that the Preferred Alternative results in slightly lower aircraft emissions and reduced noise for the most highly impacted populations in the 75dB and 70dB DNL contours. Refer to Section 3.5 of this Final EIS for more information.
12.2	Centerfield Taxiway	Impacts	Air pollution and toxic emissions will also grow as the proposed 9,300 foot centerfield taxiway would allow more aircraft to push back from gates and idle on the taxiway while waiting to take off.	The Centerfield Taxiway would not change the number of aircraft scheduled to depart Logan Airport, but would improve ground movement efficiency and safety, and would reduce taxiing delays. When using Runways 22L/R for departures, the Centerfield Taxiway would provide an alternate taxi route for Runway 22L departures to bypass the queue for Runway 22R, thereby reducing taxiway congestion. Under existing conditions, aircraft needing to depart on Runway 22L (typically heavy jets, such as 747s with long takeoff distance requirements) must wait in the queue on Taxiway November with aircraft departing on Runway 22R. With the Centerfield Taxiway, aircraft departing on Runway 22L could depart quickly after reaching the runway end, the number of aircraft queuing on Taxiway November should decline, and larger aircraft departing on 22L would use Centerfield Taxiway rather than Taxiway November. The analysis of ground noise and air quality that was presented in the Draft EIS/EIR shows that the taxiway improvements would produce very small, and sometimes beneficial, changes in ground noise or air pollution concentrations at the receptor sites most impacted by the Centerfield Taxiway, i.e., those in the Bayswater and Constitution Beach areas of East Boston and Loring/Court Road area of Winthrop. The ground noise and air quality impacts of the Centerfield Taxiway at these sites are summarized in Section 3.10 of this Final EIS. As a result of public concerns about impacts from the operation of the Centerfield Taxiway, FAA is proposing to complete a study to evaluate operational procedures to further reduce Centerfield Taxiway impacts while preserving the operational and environmental benefits shown in the EIS. This study will be coordinated with affected parties and will address taxiing operations in the northern portion of the airfield, both on the existing Taxiway November and on the proposed Centerfield Taxiway. Section 4.2 of this Final EIS discusses this study in more detail. If the FAA decides to conduct such a study, then no decision will be made on the Centerfield Taxiway until the study is completed.

Code	Topic 1	Topic 2	Comment	Response
12.3	Regional Jets	Runway 14/32 Utilization	I find much of Massport's plan to be flawed and misguided. Philadelphia International Airport built a similar 5,000 foot runway to deal with congestion problems without delivering the promised reductions in delays. Regional jets, by and large, do not use the runway due to its short length. Similar results have been experienced at Baltimore Washington International Airport. Thus, Massport has overestimated the use of the proposed Runway 14/32 in their modeling. The shifting of operations from the existing 3-runway combinations will be considerably less than projected. This will mean Massport's projections of reductions in delays is overstated. It also will mean that many operations will not shift to over-water flight paths and the projected noise benefits will not be met.	The situations at Philadelphia and Baltimore are very different from Logan, and the lack of use of 5,000 foot runways at those airports is not an indication of future use of the proposed Runway 14/32 at Logan. At Philadelphia the design of the 5,000 foot Runway 8/26 was originally intended to provide additional capacity under instrument conditions by separating jet and commuter operations. However, use of Runways 26 and 27L for arrivals creates a wake vortex dependency between the arrivals on 27L and the departures on 27R that adversely affects the jet capacity. Hence, the use of the 5,000 foot runway at Philadelphia actually lowers the capacity of Runway 27R. In VFR conditions, Runway 26 produces little or no increase in VFR airfield capacity, and air traffic control reportedly finds it simpler to operate on the existing configuration. The remote location of Runway 8/26 requires a long and complex taxi route to the main terminal area, and the runway also has a significant down slope that increases landing distances and could restrict some aircraft from using the runway. These conditions are specific to Philadelphia and do not apply to Logan. It should also be noted that the lack of runway use is not an RJ issue. Philadelphia has significantly more turboprop operations than regional jet operations, and even these turboprops are not using Runway 8/26. The 5,000-foot Runway 15L/33R at Baltimore Washington International Airport is an extended general aviation (GA) runway located adjacent to the general aviation ramp. Due to the proximity of a nearby residential area, the airport has imposed strict noise limits that explicitly prohibit any use of the runway by commercial jets. This noise rule precludes regional jet use of the BWI runway. In fact, many GA jets such as Lear 35s and Citation IIs are also restricted from using the runway, as are some turboprops such as the ATR-72. The FAA performed an independent analysis of RJ utilization of the proposed Runway 14/32 at Logan. It should be noted that Runway 14/32 will primarily accommodate arrivals and that required landing distances for arriving aircraft are typically shorter than the distances required for takeoffs. Using the assumptions provided by the FAA's analysis and described in Appendix C of the Supplemental DEIS/FEIR, most of the regional jets forecast to use Logan Airport in the future are capable of landing on a 5,000 foot runway. Of the 184,000 regional jets in the 37.5M High RJ fleet, 43,000 are Dornier 328Jets, 36,000 are CRJs, and 100,000 are Embraer 135/145s. The remaining regional jets are larger 70-seat models that were assumed to be incapable of landing on Runway 32. Assuming that the Dornier 328 Jets could land under any conditions and that the Embraers could land under dry conditions (which occur 88 percent of the time), approximately 131,000 regional jets, or 71 percent of the future regional jet, are able to land on Runway 32. This constitutes most of the regional jets forecasts to use Logan Airport in the future. Using those same assumptions, approximately 79 percent of Logan Airport's recent regional jet operations (June 2001) could land on Runway 32. The regional jet runway use assumptions used in the Airside EIS analysis were confirmed by an independent MITRE analysis. Refer to Sections 3.3 and 3.7 as well as Appendix J of this Final EIS for a complete discussion of the utilization of Runway 14/32 by regional jets, including an analysis of RJ utilization at other airports.
12.4	Runway 14/32	Unidirectional Commitment	Massport cannot guarantee that the runway will remain unidirectional because only the FAA has the power to deliver this guarantee and has refused to make such a commitment. Furthermore, most flights which are initially diverted over water, will turn and fly over nearby communities.	The Runway 14/32 concept under review allows unidirectional operations only (i.e., all aircraft arrivals would occur over Boston Harbor to the Runway 32 approach and all departures would initiate from the Runway 14 heading out over Boston Harbor). Massport will light and stripe Runway 14/32 to accommodate unidirectional operations only. The unidirectional limitations of Runway 14/32 allow maximum use of over-water operations and thereby preclude operational impacts over residential areas. FAA approval under NEPA will allow Runway 14/32 to proceed only on a basis consistent with the

Code	Topic 1	Topic 2	Comment	Response
				stated unidirectional limitations. The location of proposed Runway 14/32 involves physical limitations that reinforce the unidirectional requirements of that improvement concept. The Hyatt Hotel and Conference Center, which is 174 feet high, is within 1,300 feet of the Runway 14. The location of the Hyatt Hotel and Conference Center obstructs applicable FAA approach surface requirements, thereby precluding arrivals from the west to Runway 14. Another factor limiting westerly operations on Runway 14/32 is the lack of available facilities to allow aircraft to taxi to the Runway 32 end for departure. Refer to Section 8.5 of the Supplemental DEIS/FEIR and to Section 4.1.1 of this Final EIS for a discussion of enforcement of the unidirectional limitation. The flight track monitoring report in the 1999 ESPR for April 1999 through September 1999 indicates that approximately 90 percent of 15R jet departures cross back over shore at an altitude above 6,000 feet. Similar performance was modeled for Runway 14 jet departures. Furthermore, jet aircraft departing from Runways 15R and 14 cross land much further from the airport than jet departures from other runway ends. The Runway 32 arrivals follow flight paths parallel to those for Runway 33L. The Runway 14 flight tracks which turn inside of the harbor are commuter aircraft departures that are typically quieter than mainline jet aircraft.
12.5	Peak Period Pricing	Implementation	Demand-management strategies need to be put in place at Logan Airport. Massport estimates that peak-period pricing would reduce delays substantially more than a new runway. Without peak period pricing and scheduling changes, future delays will expand drastically in the future.	This EIS analysis clearly shows that Peak Period Pricing is an effective delay reduction tool when airline overscheduling occurs (i.e., in the High fleet scenarios). However, Peak Period Pricing is not a substitute for Runway 14/32 in that these two options deal with very different sources of delay. Peak Period Pricing or an alternative demand management mechanism addresses delays that occur if airlines schedules exceed Logan's normal airfield capacity. In contrast, Runway 14/32 prevents delays caused by the major drop in Logan's airfield capacity that now occurs during northwest wind conditions. The Airside EIS analysis shows that Runway 14/32 leads to a substantial reduction in delays, even with peak period pricing in effect. In its Section 61 Findings, pursuant to the Massachusetts Environmental Policy Act, Massport committed to initiating the rule-making process to implement an enforceable peak period pricing program, or an alternative demand management program with comparable effectiveness, for Logan Airport. The objective of this program will be to avoid or reduce delays associated with overscheduling of Logan Airport's available capacity in good weather conditions. The goal is to have a demand management program in place before overscheduling conditions occur at Logan Airport. The FAA acknowledges that Logan Airport is one of the nation's most delayed airports and that Massport has committed to and will propose to implement a demand management program to reduce overscheduling delays. The FAA expects that any such program that is proposed for implementation will be consistent with applicable Federal law. The FAA is working with the U.S. DOT to establish national guidelines for demand management programs at U.S. airports. As part of this national effort, Logan has been selected as one of three airports to serve as a case study for U.S. airport demand management strategies.
12.6	Regional Transportation	Regional Study	Massachusetts needs a comprehensive, regional plan for meeting the transportation needs of our state.	Several regional transportation studies undertaken in the early 1990s concluded that expanded roles for regional airports, high-speed rail and infrastructure improvements at Logan Airport were needed to meet the region's long-term intercity transportation needs. Federal, state and local agencies throughout the region share the goal of improving New England's transportation network and have already begun to work, both independently and cooperatively, to achieve that goal. Great strides have been made in the last decade. Regional airports have become meaningful alternatives to Logan Airport for certain market segments. Passengers traveling to and from New York can now choose high-speed rail over air travel.

Code	Topic 1	Topic 2	Comment	Response
				These are significant achievements that resulted from years of planning efforts involving many different agencies. Local airport authorities and the FAA were responsible for significant infrastructure investments at the region's airports. Through individual and cooperative efforts, the regional airports have attracted meaningful airline services and have increased their share of the region's travel demand. Massport has assumed operating responsibility for the Worcester Regional Airport, which is capable of handling more of the region's air travel. In just one year, Massport obtained new air services for the airport, which resulted in a two-fold increase in Worcester's passenger traffic. State governments have undertaken a number of road and commuter rail projects to improve access throughout the region and make regional airports more accessible. The Federal Rail Administration and Amtrak have implemented high-speed rail along the Northeast Corridor, the only active high-speed rail service in the nation. To further the role of regional airports, the FAA, Massport, the Massachusetts Aeronautics Commission, the other five New England states, the Manchester Regional Airport, and the Rhode Island Airport Corporation are conducting the New England Regional Aviation System Plan, a continuation of the 1995 New England Regional Airports Air Service Study. The study will forecast long-term passenger and cargo demand for the entire region, identify operational capacity and environmental constraints to growth, and formulate strategies for maximizing regional airport use and creating a balanced and efficient regional airport network. Regional airport, aviation and transportation planning officials from each of the six New England states will participate in the study. While greater use of the regional airports and high-speed rail will provide relief to Logan Airport, these initiatives fail to address a significant source of Logan's airside delays. The proposed Preferred Alternative provides clear benefits at recent and future traffic levels by reducing preventable delays that occur during northwest wind conditions. Northwest wind delays at Logan Airport, which inconvenience and create unnecessary costs for hundreds of thousands of air passengers each year, cannot be mitigated through regional alternatives. Refer to Section 3.1 of this Final EIS.
12.7	Regional Transportation	Alternatives	We must shift demand to non-air travel alternatives as well as make further use of our regional airports. We can promote this by providing Logan Express bus service between Braintree, Woburn and Framingham terminals and Providence, Manchester, Hartford and Worcester Airports.	The FAA and Massport are both active proponents of regional efforts to lessen New England's reliance on Logan Airport to meet all of its inter-city travel needs. To further the role of regional airports, the FAA, the Massachusetts Aeronautics Commission, Massport, the five other states, Manchester Regional Airport, and the Rhode Island Airport Corporation are conducting the New England Regional Aviation System Plan, a continuation of the 1995 New England Regional Airports Air Service Study. The study will forecast long-term passenger and cargo demand for the entire region, identify operational capacity and environmental constraints to growth, and formulate strategies for maximizing regional airport use and creating a balanced and efficient regional airport network. The study will also explore innovative ground access measures to increase the use of regional airports. Regional airport, aviation and transportation planning officials from each of the six New England states will participate in the study. Refer to Section 3.1 and Appendix C of this Final EIS. Massport is also evaluating the possibility of utilizing Logan Express sites for third-party bus services to the regional airports, i.e., Manchester, T.F. Green and Worcester. See Appendix B, Section 61 Findings, pursuant to the Massachusetts Environmental Policy Act, of this Final EIS.

Code	Topic 1	Topic 2	Comment	Response
12.8	Regional	Rail	More must also be done to promote ridership on Amtrak's high speed Acela service. A link between North and South Stations would boost this rail use.	The proposed North-South Rail Link Project (NSRL) would link Boston's North Station and South Station and allow Amtrak to extend its high-speed Acela service to North Station and beyond to the Woburn Regional Transportation Center. The MBTA's environmental review of the NSRL project has been underway for several years. Completion of a Draft EIR has been delayed due to a lack of funding for the project. Early analysis indicates that the North-South Rail Link would divert 46,700 annual passengers from Logan Airport in 2020. This equals less than one-half of one percent of Logan Airport's CY 2000 passengers.
12.9	Environmental Justice	Impacts	Massport fails to acknowledge the lack of environmental justice in its plan and proposes no comprehensive health study for Logan's bordering communities.	The Environmental Justice analysis for the Preferred Alternative is set forth in Section 6.8 of the Supplemental DEIS/FEIR and Section 3.6 of this Final EIS. These analyses meet all applicable requirements. Low-income and minority populations were defined in accordance with Federal Executive Order 12898, the Final US Department of Transportation Order, and the Council on Environmental Quality's guidance on Environmental Justice. In addition, the analysis of low-income populations was expanded to include households at 150 percent of the poverty level and the analysis of minority populations was updated in this Final EIS to reflect Year 2000 Census data on total population, race and ethnic origin at the block level, which was released by the U.S. Census Bureau on March 21, 2001. (The Census Bureau will not begin to release comparable data on income on a state by state basis until June 2002 at the earliest.) While the Census 2000 data show that the minority population of the communities around Logan has increased, particularly in East Boston, the percentage of the population within the 29M Low 65 dB DNL contour that is minority is the same for both the No Action and Preferred Alternative. Furthermore, approximately 34 percent of the Year 2000 population within the 29M Low 65 dB DNL contour for the Preferred Alternative is minority, compared to the total Year 2000 population for Boston, Chelsea, Revere and Winthrop, which is 48 percent minority. Therefore, the Preferred Alternative does not result in a disproportionate adverse impact on minority populations. Based on 1990 Census data, less than two percent of the population within the 65 dB DNL contour for the Preferred Alternative has a household income less than 150 percent of poverty level. The additional area within the 65 dB DNL noise contour associated with the Preferred Alternative includes a predominately Hispanic neighborhood in Chelsea, which is predicted to experience an increase of 0.6 dB or less under the 29M Low fleet, the worst case for noise exposure. Under the FAA standard of 1.5 dB, this change is not a significant adverse impact. The Environmental Justice analyses in both the Supplemental DEIS and the Final EIS confirm that there is no high and adverse disproportionate impact to low-income and minority populations as a result of the Preferred Alternative. Mitigation of the increased noise within the 65 dB DNL contour will be provided to affected communities in the form of residential sound insulation. Refer to Section 4.1.3 of this Final EIS for sound insulation mitigation commitments. Massport has been cooperating with the Commonwealth of Massachusetts and the City of Boston on public health issues and will continue to facilitate monitoring of airport-related emissions by DEP and others, by assisting in monitoring site selection and providing agencies with air quality data, airport activity data, and meteorological data. Massport has shared the results of the Soot Deposition Study with public health agencies and is cooperating with the Harvard School of Public Health on the South Boston Particle Source Apportionment Study, as well as with the Massachusetts Department of Public Health, which is conducting a study of the relationship between air pollution and public health, focusing on respiratory and cardiovascular effects for communities within a five-mile radius of Logan Airport. In addition, Massport is conducting an air quality monitoring program in neighborhoods

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				surrounding the airport. Monitoring results will be presented in the Logan Airport ESPR and Annual Updates.
12.10	Environmental Justice	Users vs. Impacted Population	Residents, living near Logan, bear the burden but don't reap the benefits.	Logan Airport is an essential component of the economic health of both the Metropolitan Boston area and the New England region. Today the airport generates $2.2 billion in direct impact and $4.3 billion in indirect impact or a total of $6.5 billion. It is a major employer in Boston, directly employing over 25,625 and 75,016 indirectly for a total of 100,641 people. Of those employed at Logan, the largest percentage (16 percent) live in the City of Boston, with most living in East Boston. About 46 percent of Logan Airport workers live in Boston and its suburbs within Route 128 including Revere, Winthrop, Lynn, Peabody, Malden, Saugus, Chelsea, Everett, and Salem (from Logan International Airport's Evolving Role in the New England Economy, Draft August 2001, prepared by Economic Development Research Group). In addition, residents living in Boston and these nearby communities benefit from convenient access to the national and international air transportation systems. These benefits must be considered along with the environmental impacts of Logan Airport. The impacts of overall airport operations are characterized in the Logan Airport Environmental Status and Planning Report (ESPR) and associated Environmental Data Reports (EDRs) that Massport files on an annual basis with the Secretary of Environmental Affairs.
12.11	Environmental Justice	2000 Census Data	Massport's study has incorrectly relied on outdated census data from 1990.	The 2000 Census data regarding minority populations was not available when the Supplemental DEIS/FEIR went to print in March 2001. The Environmental Justice analysis relative to minority populations has been updated in Section 3.6 of this Final EIS to reflect Year 2000 Census data on total population, race and ethnic origin at the block level, which was released by the U.S. Census Bureau on March 21, 2001. (The Census Bureau will not begin to release comparable data on income on a state by state basis until June 2002 at the earliest.) While the Census 2000 data show that the minority population of the communities around Logan has increased, particularly in East Boston, the percentage of the population within the 29M Low 65 dB DNL contour that is minority is the same for both the No Action and Preferred Alternative. Furthermore, approximately 34 percent of the Year 2000 population within the 29M Low 65 dB DNL contour for the Preferred Alternative is minority, compared to the total Year 2000 population for Boston, Chelsea, Revere and Winthrop, which is 48 percent minority. Therefore, the Preferred Alternative does not result in a disproportionate adverse impact on minority populations. Refer to Section 3.6 of this Final EIS for additional information.

Letter 13

CITY OF BOSTON
THE ENVIRONMENT DEPARTMENT

Boston City Hall, Room 805 • Boston, MA 02201 • 617/635-3850 • FAX: 617/635-3435

June 6, 2001

Robert Durand, Secretary
Executive Office of Environmental Affairs
251 Causeway Street, 9th Floor
Boston, MA 02114
Attention: Arthur Pugsley, MEPA Office

John Silva, Environmental Programs Manager
Federal Aviation Administration New England Region, Airports Division
12 New England Executive Park
Burlington, MA 01083

Re: Logan Airside Improvements Planning Project
Supplemental Draft Environmental Impact Statement/Final Environmental Impact Report
EOEA #10458

Dear Secretary Durand and Mr. Silva:

The City of Boston has reviewed the Supplemental Draft Environmental Impact Statement/Final Environmental Impact Report (SDEIS/FEIR) for the above referenced project and hereby submits the following comments.

PROJECT

The project proposed by the Massachusetts Port Authority (Massport) and the Federal Aviation Administration (FAA) includes the following elements:

- construction of Runway 14/32; 5,000 feet long with an east-west orientation (Massport);
- construction of a new Centerfield Taxiway (Massport);
- realignment of existing Taxiway November (Massport);

- reduced approach minimums for Runways 15R, 22L, 27 and 33L (FAA); and
- promotion of increased utilization of regional airports and high-speed rail to accommodate a greater share of the region's intercity demand (Massport).

Massport hopes to begin construction of the project in the spring of 2003 and complete it in fall 2007.

Massport has designed a Peak Period Pricing Program, identified as mitigation, and indicates a commitment to implement the program when and if needed. Additional mitigation measures are identified in Section 61 Findings.

RESPONSE

13.1

This document is inadequate, inaccurate and must be rejected. Additional information and unbiased studies of the existing effects of Logan Airport are essential before any determination can be made about the environmental and health effects that the proposed expansion may cause.

"The people shall have the right to clean air and water, freedom from excessive and unnecessary noise, and the natural, scenic, historic, and esthetic qualities of their environment; and the protection of the people in their right to the conservation, development and utilization of the agricultural, mineral, forest, water, air and other natural resources is hereby declared to be a public purpose." (Constitution of the Commonwealth of Massachusetts, Article 97.) The proposed project will cause the continued violation of these rights for urban residents abutting General Edward Lawrence Logan International Airport (Logan) and for those living under flight paths.

Numerous studies of air travel needs have been conducted in Massachusetts over the years. The Strategic Assessment Report (SAR), conducted in 1993 for the Massachusetts Aeronautics Commission (MAC) by Arthur D. Little, Inc., stated that, "Simply improving the capacity of Logan will not solve the transportation capacity problem" in the region (SAR, Volume 1, ES-6).

The FAA's Airports Division of the New England Region determined that decentralizing airport usage patterns is critical to meet the region's future high speed transportation needs (Issues in Developing a New England Service Plan, April 28, 1994). Massport's planners voiced the same conclusion. "Diverting travelers from Logan, they say, is about the only way that they can see to relieve growing congestion and delays in Boston" (Boston Globe, December 24, 1995).

Table 4-8 in the 1996 Annual Update (AU) to Massport's Generic Environmental Impact Report (GEIR), contained a list of Regional Planning Studies and the implications of those studies for Logan. The City found that the information Massport chose to highlight from two of the cited studies, the SAR and the Second Major Airport Siting Study (SMA), did not fully represent the conclusions of those studies as they would affect Logan. The same is true for the way in which Massport now portrays the motivations for and conclusions of these studies in public Airside Improvements presentations. 13.2

The SMA study was undertaken because the 1989 Massachusetts Airport System Plan (MASP) concluded that even with operational and capacity improvements at Logan there would be a need for a second major airport by 2010. The SMA study did not contain a specific recommendation about the type of airport necessary (international, short-haul or long-haul domestic). The SMA study recommended that the state land bank a suitable site for a potential second major airport, most preferably at the decommissioned Ft. Devens in Ayer, near the junction of Interstate 495 and Route 2. This policy recommendation was eventually discarded by the Weld administration.

After the Weld administration decided against pursuing plans for a second major airport in the region, the Strategic Assessment Report (SAR) was conducted and rested upon baseline assumptions that were different from the 1989 MASP and 1990 SMA study. The primary differences were in demand forecasting for Logan and in the potential effects of telecommunications and new travel technologies on passenger numbers. Significant reductions in air travel demand were forecast due to projected growth in telecommunications (including videoconferencing), vertical take-off and landing (VTOL), magnetic

levitation (maglev) and high speed rail. The effect of the other technologies on transportation demand is not well understood or documented and the City believes that passenger diversion conclusions were vastly overstated. For example, the SAR claimed that telecommunications could divert up to 10 million passengers from air travel by the year 2010. Stephen P. Tocco, when Executive Director of Massport, noted in November 5, 1993 comments on the SAR that Massport did not believe that "teleconferencing and other telecomm technologies will have the impact of easing demand for travel services by 2.5 million in 2010 and 7.2 million passengers in 2030" (SAR, Vol. III, p. B-4).

It was determined through data evaluation for the SAR that, "The demand forecast identified the potential need for a facility smaller than the originally envisioned SMA, but larger than that offered by current or potential regional airports" (SAR, 2-11). This report considered the option of a "large regional reliever airport" (LRRA) instead (SAR, ES-7). It urged the state to "reconsider expanded use of one of the air bases or the existing regional airports not as a regional airport, but as a regional reliever airport, with special consideration given to Hanscom Field due to its proximity to the demand" (SAR, ES-5).

The SAR urged Massport to pursue options to raise Logan's "weighted average peak hour capacity" (see section entitled, "Logan International Airport Capacity Enhancement," SAR, Vol. II, p.4-12). According to the SAR, renewed interest in the long dormant Runway 14/32 proposal grew out of a "Capacity Delay Task Force." But Michael Dawson, a private aviation consultant, in a letter to Massport correcting errors in the report, claimed that the correct name for this group was actually the "Airport Capacity Enhancement Task Force." This is an important distinction, because if Runway 14/32 is in reality a capacity enhancing measure, then the rationale for the runway contradicts Massport's recent statements. It may also violate the Supreme Judicial Court injunction that prohibits the airport's expansion. 13.3

Clearly, as the recommendations of both the SAR and SMA were ignored by state officials, Logan now finds itself in a severe capacity crunch and the most obvious target for expansion. Boston residents should not pay the price in

health effects and quality of life degradation for the failure of the Commonwealth and Massport to act upon the costly taxpayer-funded and substantial studies already conducted.

Several 5,000 foot runways recently approved or constructed at other U. S. airports have been found unsatisfactory and airport operators are seeking to expand them to 8,000 to 10,000 feet. This is an alarming development and leads us to question Massport's future objectives. If Runway 14/32 will be used only under certain weather conditions and by aircraft requiring no more than 5,000 feet for takeoff, it is only a temporary solution that will not assure long-lasting delay reduction unless there is additional, future expansion. Because Massport has exhausted the limits of its existing land, increased operations will create pressure to enlarge airport boundaries. Given Logan's physical limitations, the current regulatory climate and the broad discretion granted by Massport's enabling legislation, residential neighborhoods and Boston Harbor are threatened. This situation is unacceptable to the City of Boston. 13.4

The Centerfield Taxiway can only add to increased aircraft queuing and associated noise and pollutant emissions. With decisions about arrivals, departures and taxiway use under the jurisdiction of Control Tower personnel, Massport cannot make an enforceable commitment that this taxiway will reduce the currently intolerable levels of taxiway idling. 13.5

On April 13, 2001, the City of Boston filed with Massport a Freedom of Information Act (FOIA) Request seeking numerous public records deemed essential to our analysis of the SDEIS/FEIR. Massport has failed to meet the statutory deadline for production of the requested records and we have not had their benefit in reviewing the proposed project.

Massport's Executive Director and Chief Executive Officer, Virginia Buckingham, testified at a May 24, 2001 hearing conducted by the U. S. House of Representatives Committee on Transportation and Infrastructure, Aviation Subcommittee. In that testimony Ms. Buckingham accused opponents of Runway 14/32 of "endlessly" delaying the proposed project "by piling more and

more layers onto an already demanding and comprehensive process." The factual information requested by the City of Boston and other stakeholders regarding the cumulative airside and landside effects caused by a major airport located in a dense urban setting have never been provided by Massport. 13.6

The Massachusetts Port Authority is a body politic and corporate created by the Massachusetts legislature in 1956. The enabling act, Chapter 465 of the Acts of 1956, gives Massport virtually unfettered fiscal, legal and administrative powers while providing practically no oversight for this far-reaching entity. The seven member Authority that governs Massport is appointed by the Governor. Massport is obligated to have its books and accounts audited no less than annually by a certified public accountant. It must submit to the Governor and General Court on or before November 30th of each year a report of its activities for the prior fiscal year and a complete operating and financial statement. This is the only oversight required by the enabling legislation. Our experience has shown that full environmental accountability of Massport does not exist.

Despite Logan's location in the City of Boston and the many negative effects it generates in Boston neighborhoods, Massport holds accountable the Federal government and tenant airlines for many of these consequences. In her May 24, 2001 testimony before the Aviation Subcommittee, Virginia Buckingham stated that "On issue after issue, we find ourselves prevented from achieving forward progress on important initiatives because federal regulations and procedures stand in the way." Massport tenant choices to: add flights to Logan Airport; utilize ground fleet vehicles that contribute to air quality degradation; and not participate in employee Transportation Demand Management (TDM) are examples of issues Massport claims are not within its control. 13.7

We do not accept these arguments. Federal regulations, properly applied, are essential if Massport is to be made answerable for the effects of an airport already unfairly burdening an urban population. Massport actively markets Logan, continuously seeking new routes and airline entrants. As the landlord at Logan, it has the authority to condition tenant leases for environmental benefit but has not done so. Massport's proposed expansion of Logan Airport is being

subject to intense scrutiny and opposition because it has steadfastly refused to address concerns raised again and again by the City and its residents. The process is arduous for all parties because Massport has not earned the trust of Boston neighborhoods. It is through a comprehensive environmental review process, and only through such process, that we can have addressed the outstanding issues that Massport has neglected through the years. The time has come for Massport to fully fund independent and unbiased analyses of Logan's effects on the environment, public health and welfare and on minority and low-income populations. The citizens of East Boston and beyond cannot accept more noise, traffic and pollution. 13.8

It is important to note that the Secretary, in his May 7, 1999 Certificate on the Airside Improvements DEIS/DEIR, stated that "...I am not convinced that the preferred alternative is purely a capacity neutral airfield enhancement..." We strongly agree with this statement and find nothing in the SDEIS/FEIR that convinces us otherwise. The City of Boston strongly urges that current policies to circumvent inclusive environmental review not be allowed to prevent conscientious and dispassionate analyses of existing health and welfare threats and the potential short- and long-term cumulative impacts of further Logan growth. 13.9

Environmental Justice

The DSEIR/FEIR is flawed because of its use of 1990 census data. 13.10

Based on 2000 census data (U. S. Census Bureau Initial Release PL 94-171, March 2001), the population demographics of the City of Boston have changed and include a dramatic shift in the population of East Boston. It is important to note, particularly when considering populations in the 60, 65 and 70 DNL contours at 37.5 million passengers in 2015, that:

- the overall minority population of Boston reported in the 2000 Census Data is 50.1 percent;
- in 1990, 24 percent of the East Boston population was minority. Today, the East Boston minority population is 50.3 percent;

- much of the demographic shift is attributable to the rise of the Hispanic/Latino population in East Boston from 18 percent in 1990 to the current level of 39 percent;
- overall, the City currently has a Hispanic/Latino population of 14.4 percent and a Black/African-American population of 23.8 percent; and
- the increase in minority populations over ten years warrants more outreach to and interaction with these communities than is evident from the SSDEISR/FEIR.

While the SDEIS/FEIR details at length the outreach to the Hispanic/Latino community in Chelsea, no similar outreach has been described for the Hispanic/Latino community in East Boston. 13.11

Table 6.8-1 in Volume 2 of the SDEIS/FEIR shows that 1995 estimates of the minority population in Boston do not reflect today's reality. The analysis of Environmental Justice issues and this project must be conducted based upon data from the 2000 census data, not 1990 data.

Missing from all discussions of the proposed project and Environmental Justice is that standards have not been in place for long-term residents of Boston who are adversely affected by Logan Airport. While the demographics of East Boston, for example, may be changing, families who have made this neighborhood their home for many generations have endured more than their share of Logan's impacts. This issue must be considered when examining how the negative effects of increased air travel are to be distributed. 13.12

Federal Environmental Justice Requirements

In 1994, then-President Clinton issued Executive Order 12898 (Executive Order), "*Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations.*" The Executive Order states that "...each Federal agency shall make achieving environmental justice part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations..."

For Federal purposes, a low-income person is one whose median income is at or below the poverty guidelines established by the U. S. Department of Health and Human Services (HHS). A low-income population would have a median income at or below $10,560 for a three person household. Even analysis using a median household income of 150 percent of the HHS-designated poverty level as cited in Section 6.8.3 of Volume 2, $15,840, would not accurately reflect the economic struggle of a family trying to live on that amount in today's Boston. The cost of living in Boston far exceeds much of the rest of the country, calling into question the suitability of the Federal income guidelines for residents affected by Logan. The Boston Metropolitan Planning Organization (MPO) Central Transportation Planning Staff (CTPS), in identifying MBTA low-income census tracts in 1989, defined low-income as 75 percent of the MPO Median of $40,000. Significant portions of the City of Boston were identified as low-income census tracts at that time and it is to be expected that the percentage has grown over the last ten years.

13.13

Under both the Executive Order, and the Department Of Transportation's (DOT) April 15, 1997 *"Order to Address Environmental Justice in Minority Populations and Low-Income Populations"* (DOT Order 5610.20), which provides guidance for conducting Environmental Justice reviews, effective outreach is emphasized. The Executive Order states that, "Participation of low-income populations, minority populations, or tribal populations may require adaptive or innovative approaches to overcome linguistic, institutional, cultural, economic, historical, or other potential barriers to effective participation in the decision-making processes of Federal agencies under customary NEPA procedures. These barriers may range from agency failure to provide translation of documents to the scheduling of meetings at times and in places that are not convenient to working families."

Volume 2, Section 6.8.1 of the SDEIS/FEIR states that "Minority populations should be identified where either: (a) the minority population of the affected area exceeds 50 percent or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis."

This originates from regulations set forth in Executive Order 12898. Boston neighborhoods affected by Logan that meet this criteria are:

- East Boston;
- Mattapan;
- Roxbury;
- South End;
- Hyde Park; and
- North Dorchester

The SDEIS/FEIR does not show that the FAA has complied with Executive Order 12898 and DOT Order 5610.20. 13.14

The Massachusetts Draft Environmental Justice Policy

The Massachusetts Draft Environmental Justice Policy (Draft Policy), developed by the EOEA, defines an Environmental Justice Community as one "where fifteen percent or more of the population have been identified through federal census data as any one of the following: non-white, low-income, having a national origin other than the United States, or lacking English language proficiency as well as communities where the Massachusetts Department of Public Health has identified elevated incidence of low birth weight, cancer, or hospital discharges associated with asthma and respiratory disease." Any community that does not fall into the designated categories may seek to be designated an Environmental Justice Community through written petition by ten or more residents of that community. The EOEA will then determine if such a designation is appropriate on a case-by-case basis. Indicators proposed as criterion include:

- ethnicity of population;
- low-income;
- a national origin other than U. S.;
- language barriers;
- age of population;
- incidence of cancer, low birth weight and asthma/respiratory disease;
- degraded housing; and
- cumulative impacts/synergistic effects.

Under the Draft Policy, the entire City of Boston would be identified as an Environmental Justice Community. Individual neighborhoods affected by flights to and from Logan that would qualify based on minority population are:

- East Boston;
- Mattapan;
- Roxbury;
- South End;
- North Dorchester;
- Hyde Park;
- Roslindale; and
- West Roxbury.

EOEA will accept comments on the Draft Policy until July 2, 2001. After changes are made and the final Policy is approved, each EOEA agency must "initially identify at least one project, funding decision, rulemaking, or other action intended to reduce environmental disparities in the Commonwealth." We believe that the subject project is an ideal candidate for an analysis of environmental disparities and we request that it be MEPA's initial project under a final Policy.

Segmentation of Airside and Landside Effects of Logan Airport

13.15

The SDEIS/FEIR deflects numerous comments, often about landside issues, by referring to prior filings for the proposed project or to annual MEPA filings. This makes review difficult and time-consuming and attempts to reinforce Massport's contention that landside and airside issues are separable. In fact, Logan-generated landside and airside activities are inextricably linked by their cumulative effects on residents' health and quality of life.

Both the MEPA Regulations and those of the National Environmental Policy Act (NEPA) prohibit segmentation. We disagree with the Secretary's conclusion in the May 7, 1999 Certificate on the DEIS/DEIR that GEIRs have provided sufficient non project-specific information that the DEIS/DEIR was satisfactory as a stand-alone document. Examples in the noise and transportation sections

of these comments show that Massport does not always comply with EOEA instructions about GEIR/AU/Environmental Status & Planning Report (ESPR) content and that the Secretary has not always enforced the requirements of Certificates. These practices support the public perception that Massport is accountable to no one. Because MEPA does not include a citizen suit provision, such as that contained in the Clean Air Act, it is crucial that any requirements of the Secretary's Certificates be fully enforceable.

Further, Massport's historic treatment of the impacts of growth at Logan in its annual MEPA filings has been to characterize growth as a phenomenon beyond its control and that improvements at Logan are a means of *mitigating* the impact of growth. Runway 14/32, in fact, is so characterized. Increases in flight operations at Logan are due in large part, however, to a long-term, strategic marketing effort by Massport (evidenced by their Website) to bring in new flights and new operators. Massport's active marketing of Logan is evidence of a "plan" for expansion of the airport and to the extent that 14/32 and the other airside improvements are a part of that plan, their review in this document is but a "segment" of a project (airport expansion. Therefore, MEPA review of airside improvements without the benefit of an analysis of all the impacts of a planned 1/3rd increase in annual passengers, is in violation of the non-segmentation provisions of the MEPA regulations.

Air Quality

Massport cited in the DEIS/DEIR two soot studies released in 1997 showing that deposition of airborne particles in surrounding neighborhoods was not the result of aircraft operations. At that time, the Boston Air Pollution Control Commission (APCC) raised several questions as to the reliability of those studies. In particular, the APCC questioned the use of "wipe" samples from jet engine housings as representative of actual particles generated by engine operation during take-off. It is reasonable to question whether the soot adhering to the engine cowling of a single Boeing 737 might not be physically and chemically different than a particle ejected from the engine during take-off. During take-off, when the engine is running at higher RPMs, the

combustion process may produce different size particles with different hydrocarbon make-up than the particles that have condensed on or adhered to the side of the engine (presumably during taxiing or idling at the gate) and exposed to prolonged periods of high temperature.

Given the continued reporting of anecdotal evidence of soot deposition and the open issues as to the accuracy and thoroughness of the soot monitoring protocol, the City of Boston once again respectfully submits that this matter demands further study. Coupled with the continuing problem of odor from aircraft operations, the overall emissions from all ground and airside operations should be the subject of a truly comprehensive, state-of-the-art monitoring and modeling study. Critical components of this soot deposition study should include: 13.16

- compilation of a database on emission factors for aircraft engines typically found at Logan;
- detailed modeling for nitrogen oxide (NO_x), particulate matter less than 10 microns (PM_{10}),, particulate matter less than 2.5 microns ($PM_{2.5}$), and volatile organic compounds (VOCs) based on emissions factors and number of operations/elapsed time of operations for each type of engine. The model should include both worst-case and averages based on meteorological data for the past 5 years;
- a particulate deposition study using data from actual jet engine test cell sampling to provide more accurate particle speciation of soot collected from the surrounding neighborhoods; and
- an analysis of the contribution of tire and brake wear from aircraft landings to particle deposition in neighborhoods adjacent to Logan.

The methodology for this study should be subject to public and independent scientific review prior to implementation.

At a minimum, Runway 14/32 would facilitate more aircraft operations per hour during certain weather conditions. This is especially of concern when 14/32 is used for departures (wind out of the southeast) and emissions from take-off are blown back into the neighborhood. The result is that Jeffries Point and surrounding areas may experience an increase in the concentration of jet 13.17

emissions during southeast wind conditions. Moreover, 14/32 is part of Logan Airport's overall program to increase passengers levels and, as such, contributes to the increase in emissions generated by the new aircraft operations. The Orient Heights neighborhood, a mere 1,800 feet from Logan's Taxiway November, Runways 22L and 22R and the proposed Centerfield Taxiway will experience a similar increase in emissions and associated health effects. 13.18 13.19

While Stage 3 aircraft create less noise than the Stage 2 aircraft being modified or replaced, they also result in increased emissions of NO_x. Massport's 1996 GEIR indicated that while emissions of VOCs and carbon monoxide (CO) have decreased, these emissions are expected to increase in the future. This is a critical issue due to Stage 3 aircraft and with the projected increase in aircraft operations over time.

The City of Boston has recommended that Massport take measures to improve local air quality in addition to those outlined in annual MEPA documents. Since 1999, we have requested that "Massport and a regional transportation task force investigate other available technologies, particularly from companies based in the region, for reducing air emissions. Heating systems, for example, can be fitted with NO_x catalysts that will allow for higher burning and efficiency with lowered NO_x emissions. In addition, we believe that Massport should establish a NO_x budget that will cap the amount of NO_x that can be generated by all land and airside operations at Logan. The cost per ton of all methods of NO_x emissions reduction should be determined so that methods can be compared and decisions made about the most useful reduction techniques" (November 22, 1999 comments of the City of Boston Environment Department on Logan 1998 Annual Update). Although Massport has recently, through the media, announced a cap similar to the one we recommended in 1999, it is not part of the proposed project and no plan for enforcement of such a mechanism has been suggested. If such a cap is to be instituted it must be enforceable, monitored by an independent entity and reporting requirements would have to meet with community and City of Boston approval. 13.20 13.21 13.22

A key issue for the City of Boston, and one especially important for the residents of East Boston, has always been the air quality impacts due to the presence of Logan Airport. At this time the City of Boston requests that Massport undertake a comprehensive air quality study that will incorporate the results of a new soot study as previously described. This study should include, but not be limited to the following: 13.23

- identification of all significant sources of air pollutant emissions affecting East Boston and other airport communities, including both Logan airside and landside sources, neighborhood sources, regional and inter-state sources;
- apportionment of air pollutants among those source to establish the relative contribution of each to pollutant exposures for residents;
- assessment of impact of Logan airport growth on air quality;
- installation and maintenance of fence-line and neighborhood air quality monitoring; and
- development of a list of recommendations for how to best reduce pollutant concentrations in near-airport neighborhoods.

This study should be developed in much the same way as the South Boston Air Quality Study funded, in part, by Boston Edison. That is, the study parameters should be developed in concert with the community and academia and the results peer-reviewed and subject to lay comment.

The City of Boston and its residents will never accept the unfettered growth contemplated by Massport without this basic information. We need to know how much and what type of air pollutants are generated by Logan Airport, with its planes, buildings, vehicles and cars, and whether those emissions are a significant cause of environmentally-related health problems.

Although Massport states in Section 7.5.1.3 of SDEIS/FEIR Volume 2 that it is committed to participating in the Massachusetts Clean Air Construction Initiative (CACI), no details are provided regarding the extent of participation. 13.24

The APCC suggests that Massport institute a vehicle trip cap tied to new air 13.25

operations. When a new or expanded service is offered from Logan, Massport must implement, or cause its tenants to implement, measures to offset added vehicle trips. For example, if a new daily flight is added to serve San Diego and it can serve 300 passengers, no less than 300 vehicle trips to Logan must be eliminated. Net new operations, total passenger capacity, reduction measures implemented and their results must be reported in annual MEPA filings.

Ground Transportation and Air Quality Consequences

Evidence shows that there are numerous environmental benefits to reducing the number of motor vehicles driven in the City of Boston at any time of the day or night. Motor vehicles emit 64 percent of the carbon monoxide (CO) in our country's air, 35 percent of the oxides of nitrogen (NO_x) and 27 percent of the volatile organic compounds (VOCs). NO_x and VOCs combine to create ground level ozone, a significant contributor to human respiratory illness. Vehicle trips, regardless of time of day, increase noise, congestion and degrade the quality of life in any neighborhood. In addition to the standard air pollutants caused by motor vehicles (CO, VOCs, NO_x and particulates), they may also leak or deposit rubber, lead, zinc, copper, cadmium, chromium, ethylene glycol and petroleum products. These contaminants affect air quality, water quality and land quality. (See Opportunities to Improve Air Quality through Transportation Pricing Programs, USEPA, EPA 420-R-97-004, 1997.)

Despite Massport's contention that Logan-related ground traffic will not increase beyond already projected levels due to the proposed project, a number of traffic- and TDM-related issues have not been adequately addressed through the GEIR/AU/ESPR process. 13.26

It has now been more than three years since Massport and the Massachusetts Bay Transportation Authority (MBTA) decided to institute a trial installation of a subway token machine in Terminal C. The trial has not begun and Massport has not sought to offer MBTA information or the sale of tokens via existing information and concierge services at Logan. Indications of transit options should be visible to deplaning passengers. We have suggested that Massport consider offering deplaning passengers a "Pass" good at Airport Station for a 13.27

period of two hours after landing. The October 16, 1998 Secretary's *1997 Annual Update Certificate* (page 5) directed Massport to summarize in the 1998 AU the results of consultations with the MBTA on this and methods for achieving short-term improvement in transit use until full development of the Airport Intermodal Transit Connector (AITC). The AU contained no discussion of either subject and the issue was not pursued by MEPA.

Logan Express showed a 15 percent increase in employee use during 1998. The Logan Airport Employee Transportation Management Association (TMA) has been less successful. TMA membership in 1998 represented employers of only 25 percent of Logan workers, a five (5) percent increase from 1997. The 1997 AU indicated that one TMA member was offering subsidized MBTA passes and we asked the following questions in our October 13, 1998 comments: 13.28

- How many people are employed by TMA members at Logan Airport?
- How many employees receive a T pass subsidy?
- Why does the TMA estimate that a reduction of only 250 to 300 employee commuter vehicle trips may be a result of Transportation Demand Management (TDM) measures?

These questions were not answered in the 1998 AU nor was it responsive to the directive of the Secretary's 1997 Certificate (pages 5 and 7) which required Massport to "include Massport's concrete plans for mitigation - in particular, strategies to increase employer participation in the Logan TMA..."

As this department stated in February 9, 2001 ESPR comments, "Once again, we must note that Massport's method for assessing air passenger ground access modes is unsound." Vehicles counted by Massport as unscheduled high occupancy vehicles (HOVs) do not necessarily carry more than one passenger to Logan and these trips should not be counted as HOVs when a single air passenger is transported in what amounts to a taxi. "We have asked in prior comments that Massport include a question in its Air Passenger Surveys about the number of air passengers sharing private, advance-reservation transportation services. Because the 1999 survey is not reproduced in the ESPR, we must assume that the question was not asked and that reported HOV mode share numbers are not reliable."

TDM and Employees

Of serious concern to this department from a regional air quality perspective is the trend toward the creation of large parking facilities for Logan employees just outside of East Boston with shuttles to the airport. Creating ample parking for employees can only undermine TDM efforts and, once again, we note that an employee who drives to Chelsea or Revere in a single occupant vehicle (SOV), parks and then takes a shuttle to Logan cannot be counted as a HOV commuter.

The ESPR indicates that membership in the Logan Transportation Management Association (TMA) has increased to 6,200 total members. The percentage of Logan employees represented by this number is not disclosed nor is the number of employees actually participating through the use of transit or HOVs. An Emergency Ride Home Program, continuing support of the Eastie Express, initiation of the Winthrop Early Morning Shuttle, a job fair at Andrew Station to promote Crosstown (CT3) bus service and a planned grant application to expand early morning bus service to Chelsea and Revere are identified as TMA initiatives.

The TMA information in the ESPR is not substantive, offering no insight into the relative success of TMA initiatives or plans to increase participation. We note that TMA membership alone does not guarantee a meaningful level of participation by individual employers and the brief references in the ESPR do not suggest that the program is a success. Useful information would include:

- the percentage of Logan employees (Massport and tenants, contractors, vendors, etc.) who are members of the TMA;
- the specific demand management measures offered and promoted by the TMA;
- the number of employees taking advantage of specific measures;
- the reduction in vehicle miles traveled (VMT) that can be directly traced to TMA participation;
- the number of new car/vanpools and CARAVAN trips associated with TMA participation; and
- the number of TMA members receiving transit pass subsidies.

For many years, this department has urged Massport to require contractors to prohibit construction worker parking at Logan and in abutting neighborhoods and to offer comprehensive TDM options to these workers. The SDEIS/FEIR states that workers will be prohibited from parking on-airport and that a construction period mitigation program will include contractually-required TDM. The TDM measures to be required are not identified and the issue of worker parking in residential neighborhoods is not addressed. Workers will use SOVs unless incentives are offered for transit and HOV use. There is no evidence that Massport has made a clear commitment to seeing that incentives are offered. This is continued evidence of Massport's disregard for health and quality of life considerations in abutting neighborhoods. 13.29

Noise

The December 10, 1999 Certificate of the EOEA Secretary on the 1998 Annual Update, which also established the Scope for the ESPR, directed Massport to "detail any mechanisms for ensuring that the [Preferential Runway Advisory System (PRAS)] program fulfills its objective of creating a more equitable noise distribution." Massport's response was that it does not expect to update the PRAS system but has identified possible means of enhancing PRAS as part of a mitigation program for the subject project. PRAS compliance for 1999 shows minimal improvement over 1998 levels and an overall low level of compliance. Because runway assignments are made by air traffic controllers over whom Massport has no authority, there is nothing to suggest that there will be increased compliance with an enhanced PRAS. 13.30

This department receives aircraft noise complaints from residents of Roxbury, Jamaica Plain, West Roxbury and Roslindale and we believe that the Hill Effect is a factor in areas under or adjacent to the Runway 27 flight path that have not been studied by Massport. In neighborhoods located between Forest Hills and the Arnold Arboretum, residents report a high level of aircraft noise which we believe reverberates between the two rises. With the anticipated 25 percent increase in the use of Runway 27 as a result of the proposed project and the continuing difficulty pilots experience in adhering to the prescribed Runway 27 13.31

flight path, Massport cannot continue to ignore the noise impacts in these areas. We reiterate our request that monitoring be established in this area. Monitoring results should be evaluated and mitigation identified before the planned substantial increase in the use of Runway 27.

The 1999 ESPR upon which Massport relies heavily was not responsive to the EOEA Secretary's directive to "begin discussions with the FAA with the goal of restricting the number of aircraft overflights under Logan's flight paths, particularly in the period between 10 PM and 7 AM." Massport responded to this directive by indicating that it has initiated an investigation of noise data and, once the data is analyzed, it will implement voluntary measures to reduce or eliminate such noise events. The Secretary has not acknowledged Massport's failure to comply with the Certificate or instructed it to provide this information. Massport should again be directed to discuss with the Federal Aviation Administration (FAA) the range of means available to restrict nighttime flights and should not be allowed to simply develop a voluntary program. 13.32

By direction of the Secretary, the ESPR was also to detail steps that Massport and the FAA might "take to bring about limitations in the number of Stage 3 operations" at Logan and to discuss "the specific types of information needed to pursue a Part 161 waiver, including schedules and timetables." Massport has not provided the information, simply stating that "no airport has successfully achieved operational restrictions under the Part 161 regulations." The Secretary must require this data. 13.33

Levels of 55 decibels outdoors and 45 decibels indoors are identified as preventing activity interference and annoyance by the U. S. Environmental Protection Agency (EPA) (EPA press release - April 2, 1974). This indicates that even the 60 decibel DNL contours required by the Secretary miss significant populations who are negatively affected by airport-related noise. 13.34

In responding in the ESPR to the Secretary's Certificate regarding extending soundproofing eligibility, Massport did not discuss 1999 conditions but indicated that approval to modify noise exposure contours was received from

the FAA in June 2000. Massport plans to carry out an expanded two year soundproofing program and will not examine including other areas in the program until the two year period is completed. This position will result in continued, distressing noise impacts for many Boston residents. 13.35

Reduced Approach Minimums for Runways 15R, 22L and 27

We do not agree with the FAA's assertion that lowering landing minimums will result in noise benefits for residents under the approach path to the runways in question. When a pilot performs a missed approach because he/she cannot see the runway, the FAA will close that particular runway and choose a secondary runway or, in a serious weather situation, close the airport until there is an improvement. Lowering the landing minimums is likely to result in the use of these runways more often during poor the weather conditions exposing nearby residents to noise levels which they currently do not experience. 13.36

Lowering the landing minima will only serve to expose already overburdened residents to additional noise impacts. Aircraft operations during inclement weather tend to expose nearby residents to higher noise levels than under normal operating conditions. The reasons for this are twofold. First, during severe weather conditions involving heavy winds and rain, a pilot must apply a greater level of thrust and adjust the aircraft's flap setting to maintain stable flight. This results in higher noise levels and increased impacts for residents under the flight path. Second, a low cloud cover is usually present under the weather conditions that dictate the use of these lower landing minimums. When this situation occurs, noise levels from aircraft events are amplified in intensity and tend to last longer than on a clear day. 13.37

Current industry practice for major commercial airports allows for greater use of the four existing runways at Logan under certain weather conditions. However, Logan is not a typical airport. It is located in a densely populated residential area, near scarce open spaces and other sensitive receptors. This makes noise a very real problem, one that will be exacerbated by the increased thrust necessary to abort a landing at lower minimums.

The approach to Runway 15R positions arriving aircraft over the heavily populated Eagle Hill section of East Boston while the approach pattern to Runway 22L results in overflights in the Orient Heights neighborhood. Lowering the landing minima on Runways 22L and 15R will increase the noise impacts on East Boston residents. As noted in the DEIS/DEIR (Volume I, p. 3-36), the City of Boston entered into an agreement with the FAA and Massport not to decrease the landing minimums on Runway 15R. It is our intention that this agreement should be respected and honored. The City's concerns are based on the premise that an arrival is the most difficult and challenging portion of a flight and that the poor the weather conditions that usually trigger the use of these lower landing minimums only serve to heighten the workload for pilots during this segment of a flight. With the high number of residents living alarmingly close to the touchdown point of these two runways, the lowering of the landing minimums will place these residents in additional peril. 13.38

Health Effects and Logan Airport

As this department and City's Environmental Services Cabinet noted in April 23, 1999 comments on the DEIS/DEIR, the Boston Public Health Commission (BPHC) believes that Massport, the FAA and the U. S. Department of Transportation (DOT) have failed to take the health of Boston residents into consideration in planning the proposed project. This is of particular concern because of the potential effects on some of the City's most vulnerable populations, already disproportionately affected by negative environmental factors. In addition, the failure to consider such matters appears to be out of compliance with Federal Executive Order 12898, *"Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations."* This Order requires every federal agency to identify and address the environmental and health effects of its programs that particularly burden minority and low-income communities. The City asks that the FAA and DOT comply with this Executive Order and provide documentation and all relevant data to that effect. 13.39 13.40

Residents of neighborhoods surrounding Logan Airport, East Boston and South Boston most particularly, are subjected to low and high frequency noise,

vibration, odor and emissions due to Logan's operations. Although the Massachusetts General Court has authorized a modest amount of funding for a survey of residents within a five mile radius of Logan, we question the benefit of the proposed survey.

The proposed Massachusetts Department of Public Health (MA DPH) survey is only one component of what should be a comprehensive health impact evaluation for Logan Airport. Because of the difficulty of adequately correcting data for multiple confounding variables, epidemiology-based studies may lack sufficient sensitivity to discern actual airport related health disparities. Modeling of health risk based on an air pollution emitter inventory and mobile sources accessing the airport is needed. Long term comprehensive fence-line monitoring of actual hazardous air pollutant emissions from Logan Airport is also needed to predict potential health impacts. 13.41

Boston generally and particularly the Boston communities around the airport have been identified by MA DPH as having elevated lung cancer incidence rates. This data does not suggest that the airport is necessarily causing the elevated lung cancer incidences but certainly demonstrates the existence of respiratory health stress.

MA DPH indicates that the lung cancer rate for Boston is significantly higher than for MA generally (SIR=111, 95% CI=107-116). Six of the 16 Boston neighborhoods had lung cancer rates that were significantly higher than the state average. Four of the 6 neighborhoods had lung cancer incidence rates significantly higher than the averages for both Boston and MA. The rates of these four neighborhoods with respect to the state average are Charlestown (SIR=186, 95% CI=154-222), East Boston (SIR=129, 95% CI=113-147), South Boston (SIR=156, 95% CI=137-177, and the South End (SIR=129, 95% CI=111-150).

Another respiratory health stress indication is asthma hospitalization rates. According to the HHS New England Region, approximate asthma hospitalization

rates for young people in Boston compared to MA are as follows:

Age Group	Boston	MA
0-4	1,000/100,000	380/100,000
5-14	600/100,000	200/100,000
15-24	150/100,000	100/100,000

This information raises serious questions about Logan's effect on local health and the potential medical consequences of expanding beyond today's operating level. To approve the proposed project without a full understanding of Logan's contribution to public health is a violation of the public trust and inconsistent with the intent and goals of Environmental Justice. 13.42

The BPHC has recently obtained study results showing that cancer risks in East Boston, South Boston, Charlestown, downtown Boston, Chelsea and Winthrop exceed expected rates. This study underscores the need for a comprehensive study that incorporates all identifiable fixed and mobile pollutant emitters. A South Boston air quality study conducted by the Harvard School of Public Health on behalf of the South Boston Community Health Center gathered important information on various sources of air contaminants including apportioning sources of PM_{10} and $PM_{2.5}$. There would be considerable value in gathering such information and monitoring particulate matter levels in other Boston neighborhoods impacted by Logan. This information will allow public health officials to build on the information gathered thus far. We support the BPHC's request that a comprehensive health study be conducted by an independent researcher with an expert, unbiased panel overseeing the design, protocol, implementation, analysis, conclusions and recommendations of such a study.

Regional Transportation Planning

The City of Boston views the proposed project as solely a capacity enhancement plan. The capacity issue at Logan is only one part of a New England transportation system that must be addressed on regional, inter- and multi-modal levels. 13.43

This department is unconvinced of Massport's claim that it is working to shift potential Logan air passengers to regional airports or other, non-air modes of transportation. We note that the 1956 enabling legislation clearly delineates the interests and responsibilities of Massport. Accordingly, it may be unreasonable to expect Massport to play a major role in diverting air passengers to other modes of travel or to air travel facilities not owned or operated by Massport.

We support the re-establishment of the New England Governor's Conference, Inc. Regional Transportation Coordinating Council and many of the goals outlined in the February 27, 2001 Resolution 154. However, we find it objectionable that this body is being reconvened only after Massport has reached what it hopes is the final stage of review for the imprudent Logan expansion project. Massport and the Commonwealth's Executive Office of Transportation and Construction (EOTC) have had six years since the Environmental Notification Form (ENF) filing to make diligent efforts to manage the growing regional transportation demand with a balanced approach. We are not convinced that quarterly meetings of this Regional Transportation Coordinating Council will result in a true multi-modal, regionally coordinated transportation system that benefits the environment and protects human health. We are also skeptical that public and quasi-public entities with an obligation to protect their own interests and agendas will be successful in developing a cross-jurisdictional plan. In order to ensure the development and implementation of a functional system that will have credibility with the public, we recommend that a regional panel of experts be convened to immediately assess the overall state of transportation in the region, develop strategies for both short- and long-term regional transportation needs and identify a variety of transportation options available for the traveling public and the movement of goods. Communities in the region must be fairly and adequately represented on such a panel along with public officials, economists, land use planners, transportation professionals, and representatives of transportation industries, environmental and public health interests.

13.44

Economic Analyses

The anticipated cost for the Airside Improvements project was not disclosed in either the DEIS/DEIR or the SDEIS/FEIR, an omission that cannot be inadvertent. We understand the current estimate to be about $76,000,000. This figure should be corrected or confirmed and accurate projections for the cost of each project element should be divulged. 13.45

Massport claims that the project is necessary for the region's economic growth. It has, however, provided no evidence to support the conclusion that the investment in the current proposal will provide the greatest environmental, economic and transportation benefit to the region. Upgrading baggage handling and passenger amenities at Laurence G. Hanscom Field, arranging for bus service to Hanscom, Worcester Airport and Manchester Airport from Logan Express locations, expanding Logan Express service outside of Route 495 and improving high occupancy vehicle (HOV) ground access to other modes of interstate travel are just three examples of alternative actions that might be part of an effective, less costly delay-reduction plan. If air service from Worcester is significantly expanded over time, it may be appropriate to reduce ground transportation services in the future. The current level of air service suggests, however, that there is an existing market for HOV ground transportation. 13.46

The City of Boston believes that a cost/benefit economic analysis of the project must be conducted by an independent, unbiased entity using 2001 dollar figures. Such an analysis should examine the potential benefits of improving other, existing air travel facilities, alternative modes and ground transportation to water, rail and other modes of travel. 13.47

Fleet Mix

The Massport Logan Community Advisory Committee (CAC) has conducted a detailed evaluation of the SDEIS/FEIR and makes a compelling argument that Massport's fleet mix projections are erroneous, particularly when estimating regional jet traffic. The evaluation, well-reasoned and based upon information 13.48

from the airline industry, concludes that airlines are moving toward increased use of regional jets and that Runway 14/32 will not serve a fleet requiring more than 5,000 feet of runway length. Massport should be required to re-assess its fleet projections and provide evidence for its conclusions.

Stormwater Management

Response to Comment # 37.12 under the topic of Water Quality - Stormwater states that "The construction of the Centerfield Taxiway or Runway 14/32 would not affect the drainage system for the North Pollution Control Facility. Similarly, the drainage system for the Maverick Street and Porter Street outfalls would be unaffected by the proposed taxiway construction." This response does not address the effect of the construction of Runway 14/32 on the Maverick and Porter Street outfalls. 13.49

This response also states that the redirection of 55 acres of airfield drainage from West Outfall to existing perimeter drains will increase the efficiency of the West Outfall to treat flow from terminal areas. Response to Comment #37.46 states that federal regulations do not require Massport to monitor "non-industrial" drainage from the airfield that discharges through these perimeter outfalls. Although this same response states that airfield runoff is not a significant source of contaminants or suspended solid materials. The lack of required monitoring leaves the Boston Conservation Commission (BCC) unable to independently assess the affect of stormwater runoff from "non-industrial" sources. The untreated runoff may carry de-icing compounds and petroleum products directly into Boston Harbor. Although Massport proposes low-flow chambers to capture such contaminants, it is unclear at this time what volume of stormwater these structures will be able to treat. Furthermore, although it is unclear how much of the redirected 55 acres are currently paved, Massport alludes that some of this acreage is currently pervious surface. The discharge volume entering these untreated perimeter outfalls will inevitably increase with the proposed airside improvements. 13.50

Conclusion

There is much work to be done before review of the proposed project is completed.

- Environmental Justice issues regarding this project must be analyzed using 2000 census data.
- A comprehensive, state-of-the-art monitoring and modeling study of soot and other air quality issues must be conducted to identify existing conditions, predict future conditions and identify appropriate mitigation. The methodology, underlying assumptions, conclusions and mitigation must be subject to oversight by members of the public, airline industry, academic, medical and scientific communities and City of Boston designees representing the interests of public health, the environment and transportation.
- Massport must identify and implement measures to prevent further air quality degradation in addition to the NO_x and vehicle trip caps we have suggested. 13.51
- Baseline Logan-related health data is virtually non-existent. There has been no effort by Massport to ensure that existing data for the Logan-affected area and information from other sources (ex. health data generated regarding other dense, urban areas with airports located in residential areas) is aggregated. Massport has invested no effort in seeing that the MA DPH or any other public entity is comprehensively studying the potential ties between Logan and a wide variety of health conditions (ex. cancer, respiratory illness, stress-related disease). This is an unacceptable abrogation of the Commonwealth's responsibilities under Article 97. Modeling of health risk based on an air pollution emitter inventory and mobile sources accessing the airport is needed. Long term comprehensive fenceline monitoring of actual hazardous air pollutant emissions from Logan Airport is also needed to predict potential health impacts. The methodology, protocol, underlying assumptions, conclusions and mitigation must be subject to oversight by members of the public, airline industry, academic, medical and scientific communities and

City of Boston designees representing the interests of public health, the environment and transportation.

- Noise monitoring, geared to assessing the Hill Effect and pilot compliance with the required Runway 27 flight path, must be established in Roxbury, Jamaica Plain, West Roxbury and Roslindale. A neutral, third-party expert subject to public, City and academic and scientific oversight should establish such a program, evaluate data and reach conclusions on Logan-related noise impacts to these communities.
- A regional panel of experts must be convened to immediately assess the overall state of transportation in the region, develop strategies for both short- and long-term regional transportation needs and identify a variety of transportation options available for the traveling public and the movement of goods. Communities in the region must be fairly and adequately represented on such a panel along with public officials, economists, land use planners, transportation professionals,
- and representatives of transportation industries, environmental and public health interests.
- A cost/benefit economic analysis of the project must be conducted by an independent, unbiased entity using 2001 dollar figures. Such an analysis should examine the potential benefits of improving other, existing air travel facilities, alternative modes and ground transportation to water, rail and other modes of travel.
- Massport must identify an immediate means to restrict aircraft overflights between 10:00 p.m. and 7:00 a.m.
- Massport must initiate the process for a Part 161 waiver.
- Massport must provide non-equivocal answers to questions and information requests from stakeholders including the City of Boston. This calls for annual MEPA filings that provide detailed accounts of activities and fully disclose requested information.
- A means to hold Massport legally accountable for all commitments is necessary and does not currently exist (ex. Massport's commitment to not lower the landing minimum on Runway 15R).

Attached as an adendum to these comments is a Table, Boston Environment Department Comments/Requests on Selected Issues and Massport Responses, that highlights this department's comments and information requests since 1996 in the areas of:

- air quality;
- increased capacity potential at Logan if the Airside Improvements Project were to be implemented;
- water quality;
- noise and vibration;
- energy conservation, resource conservation, waste reduction and recycling;
- ground transportation; and, most importantly
- public health and quality of life.

Thank you for the opportunity to offer comment. We look forward to the additional analyses that will fully inform the City of Boston and other stakeholders about the current impacts of Logan and how the proposed project might change those conditions.

Sincerely,

Antonia M. Pollak
Director

cc: Andrea d'Amato, Chief of Environmental Services
Mark Sweeney, Esq., Corporation Counsel

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Boston Environment Department Comments/Requests on Selected Issues and Massport Responses
6/6/01

COMMENT DATE	TOPIC	COMMENT/INFORMATION REQUESTED	MASSPORT RESPONSE	REMARKS
9/24/96 comments on 1994 GEIR/1995 Annual Update	Air Quality	Request: "The GEIR indicates that while emissions of VOC and CO have decreased, (as has NO_x to a much lesser extent), these emissions are expected to rise in the future. With Stage 3 aircraft emitting significant amounts of NO_x and the projected increase in aircraft operations over time, this is a critical issue. Massport is to be commended for its program for conversion of its ground service vehicle fleet to alternative-fueled vehicles. Similar efforts by tenants must be strongly promoted by Massport. As an important step in mitigating the air quality impacts of Logan Airport, new lease agreements should include requirements or incentives, such as reduced curb fees for private fleet operators, for use of low or no emission vehicles by tenants. In addition, we believe that additional measures will be necessary and request that Massport investigate other available technologies, particularly from Massachusetts-based companies, for reducing air emissions. Findings should be reported in the next Annual Update.	None.	
9/24/96	Air Quality	Requested: The level of compliance by taxi pool vehicles with the Commonwealth's five-minute idle law.	None.	
9/24/96	Air Quality	Requested: Results of a Massport-initiated monitoring program for $PM_{2.5}$ and PM_{10} to determine baseline levels and the manner in which they are distributed.	Although Massport said that various options for a monitoring program were being evaluated, it would not implement such a program until the U.S. Environmental Protection Agency (EPA) had resolved monitoring issues and requirements.	At the time of these comments, EPA-certified equipment for PM_{10} monitoring was well-established and several technologies were available by 1998 for monitoring $PM_{2.5}$.
9/24/96	Air Quality and Public Service	Recommended: Due to community complaints about the strong odor of jet fuel, Massport should undertake a community education effort to inform residents of the way to file odor complaints.	Massport already has a "hot-line" for people to use.	No response to issue of educating the public about this "hot-line."
9/24/96	Air Quality	Requested: Identification of ways to mitigate odor impacts.	"The first step is to analyze odor events to determine possible causes. Massport does not, however, have control over aircraft sources since operations are within the jurisdiction of the FAA."	There has been no reported analysis of odor events to determine possible causes. Massport denies any control over this problem.

Boston Environment Department Comments/Requests on Selected Issues and Massport Responses
6/6/01

COMMENT DATE	TOPIC	COMMENT/INFORMATION REQUESTED	MASSPORT RESPONSE	REMARKS
9/24/96	Increased Capacity Potential, Air Quality, Ground Access and Transportation, Noise and Water Quality	Requested inclusion in Airside Improvements EIR: An analysis of the airside improvement plan to include the potential number of passengers and operations Logan would be capable of sustaining upon completion, the potential number of aircraft that could be queued on taxiways and the impacts of this potential capacity on: air quality (odor, soot, CO, NO_x, $PM_{2.5}$, and PM_{10}); ground access and transportation (HOV and public transportation mode shares, vehicle trips per passenger [VTPP], vehicle miles traveled [VMT], anticipated employee transit characteristics and overall parking needs); noise information including the number of Boston residents living in the projected L_{dn} 60dB and 65dB contours and projected low frequency noise impacts; and water quality, especially related to projected fuel spills and deicing activities.	The airside improvements projects will not increase the capacity of the airport.	Not provided in Airside Improvements DEIS/DEIR or FSDEIS/FEIR. This analysis would have overcome complaints of segmentation, a practice prohibited by MEPA and NEPA regulations.
9/24/96	Water Quality	General request: The permanent installation of plaques at storm drains that bear the warning, "Don't Dump...Drains to Boston Harbor."	"Massport has contacted the Boston Water and Sewer Commission regarding the purchase of cast iron 'Do Not Dump-Drains to Boston Harbor' signs to be placed on susceptible storm drains. These signs, which may be permanently placed on the road or sidewalk are currently being sold by the Water and Sewer Commission for $25 each."	This response simply indicates that Massport looked into the price of the casting. There is no commitment to installation of the plaques.

COMMENT DATE	TOPIC	COMMENT/INFORMATION REQUESTED	MASSPORT RESPONSE	REMARKS
9/24/96	Energy Conserva-tion, Resource Conserva-tion, Waste Reduction and Recycling	Request for all future Generic Environmental Impact Reports (GEIR)and AU: Distinct sections devoted to the issues of energy and resource conservation, waste reduction and recycling.	"Massport has an extensive recycling effort in place at Logan Airport and is committed to continuing this program. Massport continues to comply with all Federal and state regulations which pertain to recycling as well. Instead of providing a separate chapter regarding recycling and energy conservation, each appropriate technical chapter will address any relevant recycling effort."	Massport has never described the Logan recycling program and recent visits to terminals show little opportunity for recycling. No reference to recycling is found in any technical chapter. This department is aware of no Federal requirement for recycling. State law (State Solid Waste Facility Management Regulations, 310 CMR 19.017) has required the recycling of white goods since 1992; metal cans since 1993; glass since 1993; plastics since 1995; and paper since 1995.
9/24/96	Ground Transpor-tation	Request: An analysis of options that might minimize vehicle trips - a barrier toll at the airport entrance, rescission of the taxi surcharge and a parking pricing policy that makes the first hour the most expensive.	"Massport continues to evaluate potential policy changes that will further its goal to shift passengers to more environmentally friendly modes of travel while providing adequate and convenient services for its patrons."	Massport environmental documents have never indicated an evaluation of any of these suggested options.
9/24/96	Ground Transpor-tation	Request: The GEIR indicates that Massport is evaluating the benefits of moving bus servicing and other operations to off-airport locations. The Annual Update should include a discussion of this issue, including the number of vehicle trips this would add to current levels.	No response.	This was the first of four GEIR/AU comment requests for a response.

Boston Environment Department Comments/Requests on Selected Issues and Massport Responses
6/6/01

COMMENT DATE	TOPIC	COMMENT/INFORMATION REQUESTED	MASSPORT RESPONSE	REMARKS
9/24/96	Ground Transportation	Request: MBTA token machines in a highly visible location in every terminal along with subway maps and bus and subway schedule information.	"In cooperation with the MBTA, Massport is investigating the installation of subway token vending machines in the terminals. A pilot program to install token machines is planned for Terminal C."	This is the first of five GEIR/AU/ESPR comment requests for some manner of making air passengers aware of MBTA services and offering tokens for sale and service information at Logan.
9/24/96	Study of Potential Multiple Health Effects of Logan	Request: Funding for and, in cooperation with health agencies and residents, development of a methodology to study individual and cumulative airport impacts and their potential role in causing cancer, respiratory illness, hearing damage, headaches, emotional distress, neurological complaints, violence and stress-related disorders.	Massport indicated that it agreed with Trudy Coxe, Massachusetts Secretary of Environmental Affairs, that Massport could best serve East Boston by documenting and ultimately mitigating Logan's air quality impacts.	
9/24/96	Health and Quality of Life	Request: Examine the effect of vibration on health and quality of life.	"Massport is aware of no dose-response relationship between vibration which is felt (induced by low frequency noise) and annoyance or other indicator or quality of life. ...Massport will monitor the results of the research."	Residents who experience vibration are a good source of evidence that it degrades quality of life. Massport has not reported on its monitoring of research results.
9/24/96	Study of Low-Frequency Noise and Vibration Due to Wide-Bodied Aircraft	Request: Study the effects of low frequency noise and associated vibration generated by wide-bodied aircraft.	Wide-bodied aircraft were not included in the study "because there were insufficient operations from which to draw any conclusions. The absence of wide-body data was also noticed by the FAA's Office of Environment and Energy in its review of the Massport work prior to developing the scope for the BWI study."	Massport did not include wide-bodied aircraft in its study of low-frequency noise even though Logan is served by wide-bodied aircraft and gates at Logan were and are being constructed to accommodate them. We are aware of no further studies.

Boston Environment Department Comments/Requests on Selected Issues and Massport Responses
6/6/01

COMMENT DATE	TOPIC	COMMENT/INFORMATION REQUESTED	MASSPORT RESPONSE	REMARKS
9/24/96	Identify Mitigation for Low-Frequency Noise and Vibration	Request: Research to identify any mitigation standards for low-frequency noise and vibration that have been initiated at other airports.	No response.	
9/24/96	Exceed-ance Data	Requested inclusion in 1996 Annual Update: A description of the frequency and manner in which exceedance data is provided to airlines and a list of exceedances, including single events.	"Massport will be meeting with the FAA and airline representatives regularly as part of the ongoing Flight Track Monitoring Program."	

Boston Environment Department Comments/Requests on Selected Issues and Massport Responses
6/6/01

COMMENT DATE	TOPIC	COMMENT/INFORMATION REQUESTED	MASSPORT RESPONSE	REMARKS
11/24/97 comments on 1996 Annual Update	Air Quality	Request: Due to continuing complaints from residents about taxi idling, how has illegal idling been addressed?	None.	Massport had indicated in the 1994 GEIR/1995 AU that this problem had been addressed but it remains an air quality issue.
11/27/97	Air Quality	Request: "Again, we ask that permanent signs be posted at all service areas, loading docks, the Bus/Limo Pool and other areas where vehicles are likely to idle advising drivers of the law and Massport's expectation of compliance."	"Several signs were posted in the bus/limousine pool and taxi pool areas."	The law is the Commonwealth's five-minute idle law (MGL C. 90, Section 16A and 310 CMR 7.11). Massport did not address illegal idling at service areas, loading docks and locations such as drop-off/pick-up areas where excessive idling is common.
11/24/97	Ground Transpor-tation	Request for information: "As we have said before, token machines should be available in a highly visible location at every terminal along with subway maps and bus and subway schedule information. Massport continues to reply that there will be a trial installation of a token machine at Terminal C. This trial was mentioned in the 1994-95 Generic Environmental Impact Report (GEIR) (filed July 1996) and was reportedly held up as a result of damage to token machines from the October 1996 flooding. Thirteen (13) months later a token machine is still not installed at Terminal C and 1996 activity in this regard is listed as "planning" for installation. When will this extended planning result in the actual installation of a token machine?"	"Discussions are underway among Massport, the Executive Office of Transportation and Construction (EOTC), and the Massachusetts Bay Transportation Authority (MBTA) regarding token provision."	MBTA tokens and subway/bus information are still not available at Logan. This is the second of five consecutive GEIR/AU/ESPR comments on this issue.
11/24/97	Ground Transpor-tation	Request: "A means of transit should not be considered high occupancy unless there are three or more air passengers in the vehicle. A private, on-demand service that transports one passenger to Logan is not an HOV. Future air passenger surveys, information asked of registered providers and Transportation Services Unit statistics should distinguish between the use of vehicles containing less than three air passengers and those containing three or more air passengers (true HOVs."	"The next passenger survey is scheduled for 1999. High-occupancy (HOV) definitions will be evaluated at that time."	The ESPR for 1999 did not discuss this issue, include a copy of the passenger survey or provide any information on the survey methodology, return ratio or specific results.

Boston Environment Department Comments/Requests on Selected Issues and Massport Responses
6/6/01

COMMENT DATE	TOPIC	COMMENT/INFORMATION REQUESTED	MASSPORT RESPONSE	REMARKS
11/24/97	Ground Transportation	"From a regional transit and air quality perspective, shuttling to the airport employees who have driven to parking lots in Chelsea and Revere in single occupant vehicles should not count as HOV use. Ridership levels should distinguish between employees who utilize an HOV for only part of their trip to work and those who use an HOV for the entire commute. A distinction must also be made between carpoolers and drop-off/pick-ups..."	"Those airport employees who are directed to park at the Chelsea garage or some other remote location and take a shuttle service to the airport are considered HOV riders. This subject has been studied extensively in previous Massport filings, with results showing that this activity reduces traffic on airport and East Boston roadways and provides an air quality benefit to these areas as well."	It is disingenuous to allow Massport to count as an HOV commuter an employee who has driven in a single occupancy vehicle (SOV) from Dedham, for example, and then traveled the shortest leg of the commute on a shuttle bus. The distinction between carpoolers and drop-off/pick-up commuters has still not been made.
11/24/97	Increased Capacity Potential	Request: The Airside Improvements environmental filing should disclose the passenger and operations capacity of Logan airport if the project is implemented.	None.	This information was not provided in either the Airside Improvements DEIS/DEIR or SDEIS/FEIR.
11/24/97	Energy Conservation, Resource Conservation, Waste Reduction and Recycling	Request for all future GEIR and AU: Distinct sections devoted to the issues on energy and resource conservation, waste reduction and recycling.	"The Logan Airport Generic Environmental Impact Reports (GEIRs) and Annual Updates specifically respond to the scope items required by the Secretary of the Executive Office of Environmental Affairs (EOEA)."	
11/24/97	Health Effects of Logan	Request: Funding for and, in cooperation with health agencies and residents, development of a methodology to study individual and cumulative airport impacts and their potential role in causing cancer, respiratory illness, hearing damage, headaches, emotional distress, neurological complaints, violence and stress-related disorders.	"In her Certificate on the *1996 Annual Update*, the Secretary of EOEA states that Massport has satisfied its obligations regarding reporting on health studies."	This response indicates that, since at least 1997, Massport has seen itself as free from any responsibility for the health-related effects of the airport.

COMMENT DATE	TOPIC	COMMENT/INFORMATION REQUESTED	MASSPORT RESPONSE	REMARKS
11/24/97	Noise	Request for all future GEIR and AU: Use of FAA flight strips to document and report on actual, rather than scheduled, flights departing Logan between 11:00 p.m. and 7:00 a.m.	"As described in the 1994/1995 GEIR and the 1996 Annual Update, Massport is using its updated Noise and Operations Monitoring (NOMS) system to provide actual nighttime and daytime flight data. This method is more accurate than using the Official Airline Guide (OAG), as was the practice in the past, since the OAG only lists the scheduled flights, whereas the NOMS records actual conditions."	

COMMENT DATE	TOPIC	COMMENT/INFORMATION REQUESTED	MASSPORT RESPONSE	REMARKS
10/13/98 comments on 1997 Annual Update				Massport did not identify specific comments for response but provided "summary responses to topics raised in the Certificate and comment letters."
10/13/98	Air Quality	Request: Information on the percentage of private fleet and airside service vehicle owners who have taken advantage of incentives to use alternative fueled vehicles (AFV); an assessment of the adequacy of a 25 percent discount incentive; and an analysis of the effect further discounted or free curb access might have on the use of AFV and on Massport revenues.	In 1998 (the year after the subject year) Massport issued a "preliminary survey" to all airport tenants and users and found a total of 11 percent of 1,728 vehicles were powered by electricity, compressed natural gas (CNG) and liquefied petroleum gas.	The response does not indicate the number of surveys distributed or the response rate and no information is provided regarding the total number of vehicles that serve Logan. No distinction is made between private fleet vehicles and airside service vehicles. There is no assessment of the adequacy of a 25 percent discount incentive for the use of AFVs and no analysis of the potential effect of further discounted or free curb access.

Boston Environment Department Comments/Requests on Selected Issues and Massport Responses
6/6/01

COMMENT DATE	TOPIC	COMMENT/INFORMATION REQUESTED	MASSPORT RESPONSE	REMARKS
10/13/98	Air Quality	Request for next GEIR: A comprehensive literature search on aircraft-generated particulate matter ($PM_{2.5}$).	No response.	Particulate matter was also identified as an issue by this department in prior GEIR/AU comments and in relation to the AITC project as Massport had indicated that bio-diesel was under consideration as an AITC fuel source. The National Renewable Energies Laboratory (NREL) was due to complete a study on biodiesel in July or August, 1997.
10/13/98	Energy Conserva-tion, Resource Conserva-tion, Waste Reduction and Recycling	Request for all future GEIR and AU: Distinct sections devoted to the issues on energy and resource conservation, waste reduction and recycling.	"The Logan Airport Generic Environmental Impact Reports (GEIRs) and Annual Updates specifically respond to the scope items required by the Secretary of the Executive Office of Environmental Affairs (EOEA)."	
10/13/98	Ground Transpor-tation	Request: Information regarding the number of employees belonging to the Logan Transportation Management Association (TMA) and the number of employees receiving MBTA pass subsidies.	Information not provided.	
10/13/98	Ground Transpor-tation	Request: An explanation for the estimate that the TMA and Transportation Demand Management (TDM) will reduce employee vehicle trips by only 250 to 300.	No response.	
10/13/98	Health Effects of Logan	Request for next GEIR: A literature search on the potential ties between Logan operations and cancer, respiratory illness, hearing damage, headaches, emotional distress, neurological complaints, violence and stress-related disorders.	No response.	
10/13/98	Noise	Request for next GEIR: Use of FAA flight strips to document and report on actual, rather than scheduled, flights using Stage 2 aircraft departing Logan between 11:00 p.m. and 7:00 a.m.	Information not provided.	Massport included modeled numbers rather than actual numbers.

10/13/98	Noise	Request for next GEIR: Noise Operations and Monitoring System (NOMS) data showing actual annual number of flights that violated nighttime runway restrictions and annual number of late-night over-water flights.	Information not provided.	Massport had said, in response to our 11/24/97 comments on the 1996 AU, that NOMS data could provide actual nighttime flight data but NOMS-generated information about the number of flights annually violating nighttime runway restrictions has never been disclosed. This was BED's second GEIR/AU request for this information.
10/13/98	Water Quality	General request: The permanent installation of plaques at storm drains that bear the warning, "Don't Dump...Drains to Boston Harbor."	No response.	

COMMENT DATE	TOPIC	COMMENT/INFORMATION REQUESTED	MASSPORT RESPONSE	REMARKS
11/22/99 comments on 1998 Annual Update	Air Quality	Request: "For several years, Massport has indicated that it is evaluating the benefits of moving bus servicing and other operations to off-airport locations. This will add vehicle trips to current levels, a detriment to air quality. The City has twice requested that a detailed analysis and discussions be presented in a GEIR or AU but Massport has never responded to this inquiring. We request that the 1999 Draft Environmental Status Report (DESR) respond to this issue."	"For operational reasons, Massport determined that operation of airport shuttle bus services would be improved by privatizing the airport's shuttle bus system...Massport does not have a facility on-airport that can support CNG vehicle maintenance. Thus, a requirement of the bus service contract was that the service provider must maintain the vehicles in a facility that meets the building code and fire prevention regulations for CNG vehicle maintenance."	Massport's response was to a third request by this department for a discussion of moving servicing off-airport. No discussion was contained in any environmental document and the text of this AU did not disclose this change or alter vehicle trip numbers. This raises concerns for BED that, as Logan continues to expand and space becomes tighter, additional services will be moved to off-airport locations. (Logan Commerce Park at 480 McClellan Highway is an example of a use moved off-airport. The relocation has resulted in an increase in vehicle trips on East Boston roadways.)

COMMENT DATE	TOPIC	COMMENT/INFORMATION REQUESTED	MASSPORT RESPONSE	REMARKS
11/22/99	Air Quality	Request: "Given the continued reporting of anecdotal evidence of soot deposition and the open issues as to the accuracy and robustness of the soot monitoring protocol, the City of Boston respectfully submits that this matter demands further study. Coupled with the continuing problem of odor from aircraft operations, the overall emissions from all airside operations should be the subject of a truly comprehensive, state-of-the-art monitoring and modeling study."	"Emissions of soot and odor-causing substances have been the subject of both monitoring and modeling studies at Logan. In 1997, Massport commissioned a soot study that revealed airport-related emissions as being a very small contributor to ambient soot levels in the immediate vicinity of Logan Airport. Odor complaints from the neighboring communities are also recorded and analyzed by Massport. Where possible, responses are sent out to complainants explaining the circumstances of the odor event."	The APCC has, since release of the 1997 Soot Study, commented that the study methodology was flawed and did not result in accurate information and conclusions. Massport has disagreed but has not challenged the APCC's specific objections to the study methodology. No information about odor complaints or any analysis of them by Massport has been disclosed. The criteria that makes it "possible" to explain the circumstances of an odor event is not discussed nor does Massport divulge the percentage of complaints it responds to in this manner. This suggests that Massport has not conducted the analyses as claimed in the 1997 AU Response to Comments.

COMMENT DATE	TOPIC	COMMENT/INFORMATION REQUESTED	MASSPORT RESPONSE	REMARKS
11/22/99	Noise	Request: "According to the 1997 AU, Massport processed and responded to 4,663 complaints from 1,494 callers in 70 communities via its 24-hour Noise Complaint Line recording system. In 1998, Massport responded to 6,322 calls from 1,675 callers living in 67 communities. The 1998 AU contains no discussion or other information that identifies areas with the greatest number of complaints or changes since 1997. This type of analysis should be included in the 1999 DESR."	"Massport already keeps track of noise complaints by community. However, Massport is also aware from articles published in scientific journals that noise complaints are a poor indicator of community response to noise. As a result, Massport does not publish complaint data that may be misinterpreted by potentially implying that one community will be more affected by noise than another."	It is difficult to understand who Massport fears will misinterpret noise complaint data and why it fears interpretation. If Massport has empirical support for its conclusions, this should not be an issue. Massport seems to concede knowledge of scientific research only when that research supports its interests.

COMMENT DATE	TOPIC	COMMENT/INFORMATION REQUESTED	MASSPORT RESPONSE	REMARKS
11/22/99	Ground Transpor-tation	Request: "It has now been more than three years since Massport and the MBTA decided to institute a trial installation of a subway token machine in Terminal C and the trial has not begun. The October 16, 1997 Secretary's *1997 Annual Update Certificate* (page 5) directed Massport to summarize in the 1998 AU the results of consultations with the MBTA on this and methods for achieving short-term improvement in transit use (until full development of the Airport Intermodal Transit Connector [AITC]). The AU contains no discussion of either subject. As we have commented previously, Massport should provide a detailed explanation as to why an inexpensive, yet beneficial project such as installation of token machines has not moved beyond the discussion stage. Token machines should be available in a highly visible location at every terminal along with subway maps and bus and subway schedule information."	"Massport has offered to provide space at no costs, on a trial basis, in the Terminal C baggage claim area for an MBTA token machine. However, the MBTA does not currently have the equipment available to install a token vending machine in the Logan Terminal Area."	There are ways other than a token machine to highlight transit, provide information and make tokens easily available to air passengers. At times, Massport has exhibited creativity in thinking about customer service.- Concierges to assist travelers in finding hotels and restaurant is one example. A misguided proposal suggested by Massport and reported in the Wall Street Journal several years ago would have offered valet, detailing and auto repair services to Logan passengers, a clear invitation to drive to the airport. Although this service was not implemented, it is an example of the resourcefulness Massport has, at times, exhibited. This characteristic should be brought to bear in increasing transit and HOV use by passengers and employees.

Boston Environment Department Comments/Requests on Selected Issues and Massport Responses
6/6/01

COMMENT DATE	TOPIC	COMMENT/INFORMATION REQUESTED	MASSPORT RESPONSE	REMARKS
11/22/99	Ground Transportation	Comment: "Employee HOV Use - Logan Express showed a 15 percent increase in employee use during 1998. The Logan Airport Employee Transportation Management Association (TMA) has been less successful. TMA membership represents employers of only 25 percent of Logan workers, a five (5) percent increase from 1997. The 1997 AU indicated that one TMA member was offering subsidized MBTA passes and we asked the following questions in our October 13, 1998 comments: How many employees are TMA members? How many employees receive a T pass subsidy? Why does the TMA estimate that a reduction of only 250 to 300 employee commuter vehicle trips may be a result of Transportation Demand Management (TDM) measures?	The questions were not answered.	
11/22/99	Ground Transportation	"Of serious concern to this department from a regional air quality perspective is the trend toward the creation of large parking facilities for Logan employees just outside of East Boston with shuttles to the airport. Once again, we note that an employee who drives to Chelsea or Revere in a single occupant vehicle (SOV), parks and then takes a shuttle to Logan cannot be counted as a high occupancy vehicle (HOV) commuter."	No response.	Providing parking for employees undermines TDM efforts.

Letter 13

Boston Environment Department Antonia M. Pollak

Code	Topic 1	Topic 2	Comment	Response
13.1	Standards	EIS Standards	This document is inadequate, inaccurate and must be rejected. Additional information and unbiased studies of the existing effects of Logan Airport are essential before any determination can be made about the environmental and health effects that the proposed expansion may cause.	The Airside Project EIS/EIR documents respond to federal and state scoping directives and applicable FAA environmental orders and all other NEPA and MEPA requirements. The analysis in these documents and various public comments provide appropriate analytical context for evaluating the project under Federal and State environmental laws. The Secretary of Environmental Affairs found that the Final Environmental Impact Report (FEIR) submitted on this project adequately and properly complies with the Massachusetts Environmental Policy Act. The FAA's decision on the Final EIS will be reflected in the Federal Record of Decision (ROD).
13.2	Regional	Alternatives	The City found that the information Massport chose to highlight from two of the cited studies, the SAR and the Second Major Airport Siting Study (SMA), did not fully represent the conclusions of those studies as they would affect Logan. The same is true for the way in which Massport now portrays the motivations for and conclusions of these studies in public Airside Improvements presentations.	The conclusions from these studies are accurately described in the Airside EIS Documents. While the SAR analyzed multiple future scenarios, the study did recognize that Logan is the cornerstone of New England's aviation system and that infrastructure improvements at Logan, including Runway 14/32, are necessary even if alternatives to Logan are developed. The SAR also identified the potential for videoconferencing which was included in the Airside assessment of regional alternatives (Refer to Sections 2.4.3 and 2.4.4 of the Draft EIS/EIR). The SMA identified three potential second airport sites for further review, noted the existence of community opposition, and identified that 10 to 15 years would be required for site selection and environmental review in addition to a multi-year construction period. Hence, development of a second major airport would do nothing to reduce existing delays or delays expected over the next 10 to 15 years.
13.3	Capacity	Increased Capacity	...if Runway 14/32 is in reality a capacity enhancing measure, then the rationale for the runway contradicts Massport's recent statements. It may also violate the Supreme Judicial Court injunction that prohibits the airport's expansion.	By preventing the drop in capacity that currently occurs when northwest winds force Logan to operate to the northwest, Runway 14/32 will increase the amount of time that Logan Airport can operate on three runways. It will therefore increase the average capacity of the airport. It will not, however, increase Logan's normal three-runway capacity of approximately 120 hourly operations that is available around 80 percent of the time. This capacity level is consistent with the FAA's Airport Capacity Benchmarking Report 2001, which states that Logan's good weather capacity is between 118 and 126 hourly operations and that construction of Runway 14/32 will not increase this capacity. Making Logan's normal three-runway capacity level available more often increases the reliability of the airport and reduces delays. Since Runway 14/32 will not increase Logan's normal three-runway capacity, it will not increase aircraft operations or aircraft emissions. A comparison of the Preferred Alternative and the No Action Alternative for future demand levels shows that the Preferred Alternative results in slightly lower aircraft emissions and reduced noise for the most highly impacted populations in the 75dB and 70dB DNL contours. Refer to Section 3.5 of this Final EIS for more information. The issue of the applicability and/or continued validity of the 1976 injunction to the Runway 14/32 component of the Airside Project is now before the Massachusetts Superior Court. The City of Boston is party to the proceedings.
13.4	Regional Jets	Runway 14/32 Utilization	Several 5,000 foot runways recently approved or constructed at other U. S. airports have been found unsatisfactory and airport operators are seeking to expand them to 8,000 to 10,000 feet. This is an alarming development and leads us to question Massport's future objectives.	Massport has no plans to extend Runway 14/32 beyond 5,000 feet. The FAA and Massport have concluded that this length will provide adequate delay reduction during northwest wind conditions. Airports have various objectives for extending their runways beyond 5,000 feet. It is incorrect to assume that these objectives apply to Logan Airport.

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13.5	Centerfield Taxiway	Impacts	The Centerfield Taxiway can only add to increased aircraft queuing and associated noise and pollutant emissions. With decisions about arrivals, departures and taxiway use under the jurisdiction of Control Tower personnel, Massport cannot make an enforceable commitment that this taxiway will reduce the currently intolerable levels of taxiway idling.	The Centerfield Taxiway would not change the number of aircraft scheduled to depart Logan Airport, but would improve ground movement efficiency and safety, and would reduce taxiing delays. When using Runways 22L/R for departures, the Centerfield Taxiway would provide an alternate taxi route for Runway 22L departures to bypass the queue for Runway 22R, thereby reducing taxiway congestion. Under existing conditions, aircraft needing to depart on Runway 22L (typically heavy jets, such as 747s with long takeoff distance requirements) must wait in the queue on Taxiway November with aircraft departing on Runway 22R. With the Centerfield Taxiway, aircraft departing on Runway 22L could depart quickly after reaching the runway end, the number of aircraft queuing on Taxiway November should decline, and larger aircraft departing on Runway 22L would use Centerfield Taxiway rather than Taxiway November. The analysis of ground noise and air quality that was presented in the Draft EIS/EIR shows that the taxiway improvements would produce very small, and sometimes beneficial, changes in ground noise or air pollution concentrations at the receptor sites most impacted by the Centerfield Taxiway, i.e., those in the Bayswater and Constitution Beach areas of East Boston and Loring/Court Road area of Winthrop. The ground noise and air quality impacts of the Centerfield Taxiway at these sites are summarized in Section 3.10 of this Final EIS. As a result of public concerns about impacts from the operation of the Centerfield Taxiway, FAA is proposing to complete a study to evaluate operational procedures to further reduce Centerfield Taxiway impacts while preserving the operational and environmental benefits shown in the EIS. This study will be coordinated with affected parties and will address taxiing operations in the northern portion of the airfield, both on the existing Taxiway November and on the proposed Centerfield Taxiway. Section 4.2 of this Final EIS discusses this study in more detail. If the FAA decides to conduct such a study, then no decision will be made on the Centerfield Taxiway until the study is completed.
13.6	Public Participation	Data Availability	The factual information requested by the City of Boston and other stakeholders regarding the cumulative airside and landside effects caused by a major airport located in a dense urban setting have never been provided by Massport.	The proposed improvements analyzed in the Supplemental DEIS/FEIR involve both construction and administrative actions that will facilitate aircraft operations (landings, takeoffs and taxiing). The Supplemental DEIS/FEIR analyzes in detail the impacts from aircraft operations, including analysis of noise and air quality impacts during the years 1993, 1998 and under future forecast scenarios as well as environmental benefits from certain of the improvement concepts under review. In this respect, the Supplemental DEIS/FEIR conforms with scoping directives from the lead federal agency (the FAA) and with applicable FAA environmental orders, all issued in accordance with NEPA, and with directives from EOEA issued under MEPA. Various other documents, including the Logan Airport 1998 Annual Update and the 1999 Environmental Status and Progress Report (ESPR), provide additional analytic context by examining cumulative impacts from airside (i.e., aircraft) operations and landside (e.g., vehicular traffic, terminal service vehicles) operations at Logan Airport as well as Massport's comprehensive mitigation program. The ESPR/GEIR is specifically incorporated by reference in the Airside Project Draft EIS/EIR and in the Supplemental DEIS/FEIR as a background document. Each GEIR/ESPR submission is subject to public review and comment. The Logan Airport 1998 Annual Update and the 1999 ESPR analysis is based on the same forecast levels used in the Supplemental DEIS/FEIR. The GEIR/ESPR informs FAA's planning process for all the improvements at Logan Airport, including the improvements under review in the Supplemental DEIS/FEIR. Finally, FAA has conducted a thorough evaluation of the potential for cumulative impacts from past, present, and reasonably foreseeable future actions in the vicinity of Logan Airport. See Supplemental DEIS/FEIR, Section 7.3 and Final EIS Section 2.3.

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13.7	Cumulative	Airport vs. Project	Massport tenant choices are to: add flights to Logan Airport; utilize ground fleet vehicles that contribute to air quality degradation; and not participate in employee Transportation Demand Management (TMA) are examples of issues Massport claims are not within its control.	While not related to this EIS or the FAA's mitigation commitments for the Airside Project, the passenger forecasts are consistent with Massport's comprehensive Ground Access Management Plan. The goals of Massport's Ground Access Management Plan are to: increase the overall efficiency of the metropolitan transportation system through interagency coordination; increase annual air passenger HOV mode share to 35.2 percent by the time annual air passengers reach 37.5 million; reduce employee reliance on commuting alone by private automobile; provide adequate long-term parking within the limits of the Logan Airport Parking Freeze; and improve management of ground access and infrastructure through technology. Key achievements in reaching those goals include: (1) Establishment of the Logan Airport Transportation Management Association (TMA). Massport provided subsidies for TMA members on Logan Express and MBTA. TMA members ride the Rowe's Wharf Water Shuttle for free. Massport hired professional TMA firm to operate the Logan Airport TMA. (2) Massport's Logan Express bus service achieved record ridership of more than one million passengers in 1998 and 1999. Massport recently estabished a fourth Logan Express facility in Peabody, MA. (3) Construction of the Woburn Regional Transportation Center which includes 900 new parking spaces for Logan Express was completed in 2000. (4) Planning continues for the Airport Intermodal Transit Connector which will provide a direct link between Logan Airport and South Station/Red Line. (5) Massport initiated the Logan DART bus service between Logan Airport and South Station in November 2000. In the aftermath of September 11, 2001, the DART service was temporarily suspended in November 2001 due to a lack of ridership. (6) Massport continues to coordinate with the MBTA in planning for the redesigned new Airport Station to include wide escalators, flight information monitors, and other air passenger amenities. (7) Massport continues to operate free shuttle buses between Airport Station, the Water Shuttle dock, and the passenger terminals. (8) Massport implemented Logan Direct service from the South Shore. (9) Massport markets and advertises HOV services through use of the 1-800-23LOGAN telephone service and other media. (10) Massport continues to implement the commercial vehicle lane, Neptune Road exit ramp peak period forced turnaround, local street closures, and traffic volume restrictions at Maverick Street. Continued traffic monitoring, curbside monitoring, and traffic control improvements. Continued development effort for Advanced Traveler Information Systems and Automatic Vehicle Identification (AVI) to monitor commercial vehicle activity. Refer to the Logan Airport 1999 ESPR which includes Massport's Ground Access Management Plan. The Logan Airport ESPR and EDRs provide annual reports on the status of Massport's Ground Access Management Plan. Massport has taken steps to encourage tenant use of alternative fuels [electric and compressed natural gas], such as establishing on site alternative fuel facilities and establishing rate incentives for alternatives to fuel use. Massport will use the results of the ground service equipment survey to assess the feasibility of establishing alternative fuel targets for tenant vehicles and ground service equipment.
13.8	Cumulative Impacts	Airport vs. Project	The time has come for Massport to fully fund independent and unbiased analyses of Logan's effects on the environment, public health and welfare and on minority and low-income populations.	Federal environmental regulations require that FAA maintain responsibility for the EIS process. FAA believes that the environmental analysis is not biased. Furthermore, FAA has performed additional independent review where warranted. (i.e., runway length requirements.) Massport has been cooperating with the Commonwealth of Massachusetts and the City of Boston on public health issues and will continue to facilitate monitoring of airport-related emissions by DEP and others, by assisting in monitoring site selection and providing agencies with air quality data, airport activity data, and meteorological data. Massport has shared the results of the Soot Deposition Study with public health agencies and is cooperating with

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				the Harvard School of Public Health on the South Boston Particle Source Apportionment Study, as well as with the Massachusetts Department of Public Health, which is conducting a study of the relationship between air pollution and public health, focusing on respiratory and cardiovascular effects for communities within a five-mile radius of Logan Airport. In addition, Massport is conducting an air quality monitoring program in neighborhoods surrounding the airport. Monitoring results will be presented in the ESPR and annual updates
13.9	Capacity	Increased Capacity	It is important to note that the Secretary, in his May 7, 1999 Certificate on the Airside improvements DEIS/DEIR, stated that "...I am not convinced that the preferred alternative is purely a capacity neutral airfield enhancement..." We strongly agree with this statement and find nothing in the Supplemental DEIS/FEIR that convinces us otherwise.	By preventing the drop in capacity that currently occurs when northwest winds force Logan to operate to the northwest, Runway 14/32 will increase the amount of time that Logan Airport can operate on three runways. It will therefore increase the average capacity of the airport. It will not, however, increase Logan's normal three-runway capacity of approximately 120 hourly operations that is available around 80 percent of the time. This capacity level is consistent with the FAA's Airport Capacity Benchmarking Report 2001, which states that Logan's good weather capacity is between 118 and 126 hourly operations and that construction of Runway 14/32 will not increase this capacity. Making Logan's normal three-runway capacity level available more often increases the reliability of the airport and reduces delays. Since Runway 14/32 will not increase Logan's normal three-runway capacity, it will not increase aircraft operations or aircraft emissions. A comparison of the Preferred Alternative and the No Action Alternative for future demand levels shows that the Preferred Alternative results in slightly lower aircraft emissions and reduced noise for the most highly impacted populations in the 75dB and 70dB DNL contours. Refer to Section 3.5 of this Final EIS for more information.
13.10	Environmental Justice	2000 Census Data	The DSEIR/FEIR is flawed because of its use of 1990 census data. (Environmental Justice)	The 2000 Census data regarding minority populations was not available when the Supplemental DEIS/FEIR went to print in March 2001. The Environmental Justice analysis relative to minority populations has been updated in Section 3.6 of this Final EIS to reflect Year 2000 Census data on total population, race and ethnic origin at the block level, which was released by the U.S. Census Bureau on March 21, 2001. (The Census Bureau will not begin to release comparable data on income on a state by state basis until June 2002 at the earliest.) While the Census 2000 data show that the minority population of the communities around Logan has increased, particularly in East Boston, the percentage of the population within the 29M Low 65 dB DNL contour that is minority is the same for both the No Action and Preferred Alternative. Furthermore, approximately 34 percent of the Year 2000 population within the 29M Low 65 dB DNL contour for the Preferred Alternative is minority, compared to the total Year 2000 population for Boston, Chelsea, Revere and Winthrop, which is 48 percent minority. Therefore, the Preferred Alternative does not result in a disproportionate adverse impact on minority populations. Refer to Section 3.6 of this Final EIS for additional information.
13.11	Environmental Justice	Public Outreach	While the SDEIS/FEIR details at length the outreach to the Hispanic/Latino community in Chelsea, no similar outreach has been described for the Hispanic/Latino community in East Boston.	Specific outreach to the Hispanic community included a February 23, 1999 meeting with the Latin American Planning and Development Group, which represents East Boston as well as Chelsea interests. A Spanish-language interpreter was present at this meeting. There was a distribution of a Spanish-language version of the Executive Summary of the Supplemental DEIS/FEIR, along with a notice of the public hearing and availability of the document which were published in a Spanish newspaper.

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13.12	Environmental Justice	Impacts	Missing from all discussions of the proposed project and Environmental Justice is that standards have not been in place for long-term residents of Boston who are adversely affected by Logan Airport. While the demographics of East Boston, for example, may be changing, families who have made this neighborhood their home for many generations have endured more than their share of Logan's impacts. This issue must be considered when examining how the negative effects of increased air travel are to be distributed.	The document was prepared in accordance with all applicable Federal requirements and standards for assessing environmental justice impacts contained in US DOT Order 5610.20. FAA believes that the Environmental Justice analyses in the EIS Documents comply with this doctrine.
13.13	Environmental Justice	Poverty Threshold	The cost of living in Boston far exceeds much of the rest of the country, calling into question the suitability of the Federal income guidelines for residents affected by Logan. The Boston Metropolitan Planning Organization (MPO) Central Transportation Planning Staff (CTPS), in identifying MBTA low-income census tracts in 1989, defined low-income as 75 percent of the MPO Median of $40,000. Significant portions of the City of Boston were identified as low-income census tracts at that time and it is to be expected that the percentage has grown over the last ten years.	Federal procedures for Environmental Justice analysis require the use of the poverty level established by the U.S. Department of Labor for the Boston area. The most recent data available is based on the 1990 Census. To adjust for use of 1990 income data, the Environmental Justice analysis used 150 percent of this value. The 2000 Census data regarding income levels will not be available until June 2002 at the earliest.
13.14	Environmental Justice	Requirements	The Supplemental DEIS/FEIR does not show that the FAA has complied with Executive Order 12898 and DOT Order 5610.20.	The Environmental Justice analysis for the Preferred Alternative is set forth in Section 6.8 of the Supplemental DEIS/FEIR and Section 3.6 of this Final EIS. These analyses meet all applicable requirements. Low-income and minority populations were defined in accordance with Federal Executive Order 12898, the Final US Department of Transportation Order, and the Council on Environmental Quality's guidance on Environmental Justice. In addition, the analysis of low-income populations was expanded to include households at 150 percent of the poverty level and the analysis of minority populations was updated in this Final EIS to reflect Year 2000 Census data on total population, race and ethnic origin at the block level, which was released by the U.S. Census Bureau on March 21, 2001. (The Census Bureau will not begin to release comparable data on income on a state by state basis until June 2002 at the earliest.) While the Census 2000 data show that the minority population of the communities around Logan has increased, particularly in East Boston, the percentage of the population within the 29M Low 65 dB DNL contour that is minority is the same for both the No Action and Preferred Alternative. Furthermore, approximately 34 percent of the Year 2000 population within the 29M Low 65 dB DNL contour for the Preferred Alternative is minority, compared to the total Year 2000 population for Boston, Chelsea, Revere and Winthrop, which is 48 percent minority. Therefore, the Preferred Alternative does not result in a disproportionate adverse impact on minority populations. Based on 1990 Census data, less than two percent of the population within the 65 dB DNL contour for the Preferred Alternative has a household income less than 150 percent of poverty level. The additional area within the 65 dB DNL noise contour associated with the Preferred Alternative includes a predominately Hispanic neighborhood in Chelsea, which is predicted to experience an increase of 0.6 dB or less under the 29M Low fleet, the worst case for noise exposure. Under the FAA standard of 1.5 dB, this change is not a significant adverse impact. The Environmental Justice analyses in both the Supplemental DEIS and the Final EIS confirm that there is no high and

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				adverse disproportionate impact to low-income and minority populations as a result of the Preferred Alternative. Mitigation of the increased noise within the 65 dB DNL contour will be provided to affected communities in the form of residential sound insulation. Refer to Section 4.1.3 of this Final EIS for sound insulation mitigation commitments.
13.15	Cumulative Impacts	Segmentation	The Supplemental DEIS/FEIR deflects numerous comments, often about landside issues, by referring to prior filings for the proposed project or to annual MEPA filings. This makes review difficult and time-consuming and attempts to reinforce Massport's contention that landside and airside issues are separable. In fact, Logan-generated landside and airside activities are inextricably linked by their cumulative effects on residents' health and quality of life.	In accordance with Council on Environmental Quality (CEQ) regulations and guidance and FAA implementing directives, Section 2.3 of the Final EIS and Section 7.3 of the Supplemental DEIS/FEIR analyzed the past, present, and reasonably foreseeable future actions in the vicinity of Logan Airport and determined that there were no cumulative impacts related to the Airside Project, other than temporary construction-related impacts. The purpose of the Airside Project is to reduce recent and projected levels of airfield congestion and delay and to enhance the safety of aircraft operations at Logan. Massport's ongoing and proposed landside improvements to enhance the efficiency of passenger processing, include terminal modernization, as well as roadway, parking and service area improvements. The landside projects will not affect the design or implementation of the Airside Project, which has independent utility, nor will the Airside Project improvements affect the design or implementation of any of the landside projects. All airside and landside projects, where required, will continue to be the subject of comprehensive environmental analysis that examines cumulative environmental impacts. FAA also examines pertinent GEIR/ESPR documents which provide cumulative impact analysis of Logan operations, impacts and mitigation.
13.16	Air Quality	Soot	Given the continued reporting of anecdotal evidence of soot deposition and the open issues as to the accuracy and thoroughness of the soot monitoring protocol, the City of Boston once again respectfully submits that this matter demands further study.	Massport commissioned a "first-of-its-kind" soot deposition study in 1996 and published the results. Other airports in the U.S. are now about to undertake similar studies and Massport staff are tracking their progress as a means of better understanding the relationships between airports and atmospheric soot levels. Massport is also working with the Harvard School of Public Health on this subject as another means of advancing the knowledge on this matter. The results of the 1996 Massport studies were inconclusive and could be attributed to urban background. As indicated in Section 5.4.1.2 of the Supplemental DEIS/FEIR and Section 5.3.1.2 of the Draft EIS/EIR, there is little if any correlation between airport operations and urban soot. In any event, the Airside Project reduces VOC emissions and is therefore not expected to increase soot.
13.17	Air Quality	Runway 14/32	At a minimum, Runway 14/32 would facilitate more aircraft operations per hour during certain weather conditions. This is especially of concern when 14/32 is used for departures (wind out of the southeast) and emissions from takeoff are blown back into the neighborhood. The result is that Jeffries Point and surrounding areas may experience an increase in the concentration of jet emissions during southeast wind conditions.	Runway 14/32 is primarily used for arrivals, but the potential impacts of Runway 14 departures are reflected in the environmental impact modeling. The Air Quality Analysis in Sections 5.4 and 6.4 of the Supplemental DEIS/FEIR included dispersion modeling as a means of evaluating ground-level concentrations of various air pollutants in the vicinity of the airport, both with and without the planned improvements; Jeffries Point was among the areas that were evaluated. The results show that with the Preferred Alternative and an unrestricted Runway 14/32, the changes in concentrations of air pollutants at Jeffries Point will remain so small as to be essentially non-measurable. Moreover, the predicted concentrations are shown to remain well within the Ambient Air Quality Standards. These impacts would be further mitigated by the FAA's proposed operating restriction on Runway 14/32 that would limit its use to periods during which northwest or southeast winds are 10 knots or greater. Refer to Section 3.8 of this Final EIS for a discussion of the wind restriction analysis and Section 4.1.2 for operational implementation of the restriction.
13.18	Capacity	Increased Capacity	Moreover, 14/32 is part of Logan Airport's overall program to increase passengers levels and, as such, contributes to the increase in emissions generated by the new aircraft operations.	Forecasts conclude that passenger levels will increase whether or not the Preferred Alternative is implemented. Improving Logan Airport's operational reliability will allow it to accommodate forecast passenger demand with fewer airside related delays. Since Runway 14/32 will not increase passenger demand, it will not increase aircraft operations or emissions. In fact, a comparison of the Preferred Alternative and the No Action alternative for future demand levels shows that the Preferred Alternative results in slightly

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				lower aircraft emissions. Refer to Section 2.2.3 of this Final EIS.
13.19	Air Quality	Centerfield Taxiway	The Orient Heights neighborhood, a mere 1,800 feet from Logan's Taxiway November, Runways 22L and 22R and the proposed Centerfield Taxiway will experience a similar increase in emissions and associated health effects.	Implementation of the Preferred Alternative would result in an overall reduction in emissions associated with the operation of the airport when compared to the No Action Alternative. The modeling of these emissions using FAA and MEPA approved dispersion models shows that there will be a very small change in the concentrations of air pollutants at this location and the effects of the proposed improvements will be indiscernible. Moreover, the modeling results show that the concentrations of air pollutants will remain well within levels considered by the EPA and MDEP to be acceptable and not pose a risk to the human or natural environments. Monitoring results will be presented in the ESPR and annual updates.
13.20	Air Quality	Air Quality Initiative	Since 1999, we have requested that "Massport and a regional transportation task force investigate other available technologies, particularly from companies based in the region, for reducing air emissions.	The Logan Air Quality Initiative that was approved by EOEA in March 2001 includes an aggressive and comprehensive assessment of emission reduction measures, both on and off the airport. In accordance with EOEA recommendations and consistent with FAA policies, preference will given to reduction measures that can be implemented on Logan Airport followed by measures located in the immediate vicinity of Logan Airport. This analysis and implementation plan is based in large part on surface transportation and other technological opportunities. Massport is fully committed to implementation of the Air Quality Initiative (AQI). However, since the AQI was published, the aviation industry has undertaken an intense review of the program. The FAA has requested that the program be suspended and that Massport instead work within the EPA/FAA's national stakeholders process. The Air Transport Association, the primary air carrier trade association, has expressed vigorous opposition to the program asserting that implementation of the program would violate federal law. The FAA notes that states are preempted from taking actions to control emissions from aircraft engines. Moreover, the tragic events of September 11th have taken a profound toll on the aviation industry and on Logan Airport, in particular. According to Massport, until financial conditions return to pre-September 11th standards, implementation of the AQI is not feasible. Nonetheless, Massport is committed to the program and the progress of the AQI will be reported on annually in the Logan Airport Environmental Statue Planning Report (ESPR) or its annual update, the Environmental Data Report. The FAA expects that the AQI will be implemented in a manner consistent with applicable federal law.
13.21	Air Quality	NOx	...we believe that Massport should establish a NOx budget that will cap the amount of NOx that can be generated by all land and airside operations at Logan.	Refer to response to Comment 13.20. The AQI for Logan Airport is intended to accomplish this goal. Approved in March 2001, the program calls for Massport to retain emissions at 1999 levels. Sources of air emissions from both airside and landside operations, activities and facilities are subject to the requirements of this program. According to Massport, until financial conditions return to pre-September 11th standards, implementation of the AQI is not feasible. Nonetheless, Massport is committed to the program and the progress of the AQI will be reported on annually in the Logan Airport Environmental Statue Planning Report (ESPR) or its annual update, the Environmental Data Report. The FAA expects that the AQI will be implemented in a manner consistent with applicable federal law.
13.22	Air Quality	Air Quality Initiative	Although Massport has recently, through the media, announced a cap similar to the one we recommended in 1999, it is not part of the proposed project and no plan for enforcement of such a mechanism has been suggested.	Refer to response to Comments 13.20 and 13.21. The AQI is not part of the Airside Project because emissions are expected to decrease with the Preferred Alternative.
13.23	Air Quality	Study	At this time the City of Boston requests that Massport undertake a comprehensive air quality study that will incorporate the results of a new soot study as previously described.	It is the opinion of the FAA and Massport that an air quality study is not necessary. In any event, such a study would not be part of the Airside Project. A soot study has already been performed as documented in Section 5.4.1.2 of the Supplemental DEIS/FEIR and Section 5.3.1.2 of the Draft EIS/EIR. The progress and achievements of the AQI and other air quality

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				improvement programs already in-place at Logan Airport will be reported on annually in the ESPR filed with EOEA.
13.24	Mitigation	Air Quality	Although Massport states in Section 7.5.1.3 of Supplemental DEIS/FEIR Volume 2 that it is committed to participating in the Massachusetts Clean Air Construction Initiative (CACI), no details are provided regarding the extent of participation.	Massport's Section 61 Findings, pursuant to the Massachusetts Environmental Policy Act, contained in Appendix B of this Final EIS, adopts the Massachusetts Clean Air Construction Initiative (CACI). As described in Section 4.1.7 and Appendix B of this Final EIS, all Airside Project contractors will be required to participate in the program and to retrofit their equipment.
13.25	Mitigation	Ground Access	The APCC suggests that Massport institute a vehicle trip cap tied to new air operations.	Massport has an aggressive ground access program aimed at a goal of 35.2 percent HOV mode share by the time passenger levels reach 37.5 million. Massport lacks authority to institute a vehicle trip cap.
13.26	Ground Access	Increased Activity	Despite Massport's contention that Logan-related ground traffic will not increase beyond already projected levels due to the proposed project, a number of traffic- and TDM-related issues have not been adequately addressed through the GEIR/AU/ESPR process.	This issue is not part of the Airside Project. The Preferred Alternative will increase the efficiency of airside operations at Logan Airport during northwest wind conditions, but will not increase passenger levels or vehicle traffic. Refer to Section 3.5 of this Final EIS for a discussion of induced demand. Traffic- and TDN-related issues are addressed in the ESPR process.
13.27	Mitigation	Ground Access	It has now been more than three years since Massport and the Massachusetts Bay Transportation Authority (MBTA) decided to institute a trial installation of a subway token machine in Terminal C. The trial has not begun and Massport has not sought to offer MBTA information or the sale of tokens via existing information and concierge services at Logan. Indications of transit options should be visible to deplaning passengers. We have suggested that Massport consider offering deplaning passengers a "Pass" good at Airport Station for a period of two hours after landing.	This comment is not related to the Airside Project since the proposed improvements do not result in additional demand for ground access services. Massport is working with the MBTA to improve transit access to Logan Airport via the Blue Line and the Airport Intermodal Transit Connector (AITC).
13.28	Mitigation	Ground Access	The 1997 AU indicated that one TMA member was offering subsidized MBTA passes and we asked the following questions in our October 13, 1998 comments: How many people are employed by TMA members at Logan Airport? How many employees receive a T pass subsidy? Why does the TMA estimate that a reduction of only 250 to 300 employee commuter vehicle trips may be a result of Transportation Demand Management (TDM) measures? These questions were not answered in the 1998 AU nor was it responsive to the directive of the Secretary's 1997 Certificate (pages 5 and 7) which required Massport to "include Massport's concrete plans for mitigation - in particular, strategies to increase employer participation in the Logan TMA..."	TMA commitments are discussed in Section 4.2.9 and Appendix B in this Final EIS. A TMA discussion can also be found in the 1999 Logan Airport ESPR, which was filed in December 2000.

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13.29	Mitigation	Construction	The Supplemental DEIS/FEIR states that workers will be prohibited from parking on-airport and that a construction period mitigation program will include contractually-required TDM. The TDM measures to be required are not identified and the issue of worker parking in residential neighborhoods is not addressed. Workers will use SOVs unless incentives are offered for transit and HOV use. There is no evidence that Massport has made a clear commitment to seeing that incentives are offered. This is continued evidence of Massport's disregard for health and quality of life considerations in abutting neighborhoods.	Runway and taxiway construction is similar to highway construction and is not labor intensive. As few as two and as many as 50 to 75 people would be working on the Airside Project construction at any one time, with an average of 15 to 20 workers on-site during a typical shift. By comparison an average of 15,000 non-construction employees work at Logan Airport on a daily basis. Parking on-site will be limited. Under Massport's standard construction period mitigation program, construction workers will be subject to a contractually required transportation demand management (TDM) program. Contractors will be required to join the Logan Employee Transportation Management Association (TMA). Workers are expected to commute to and from the construction site by using public transportation or high occupancy vehicles, such as shuttles or buses. Through membership of the TMA, incentives will be provided through subsidized MBTA passes, reduced fares on the water shuttle, and through other measures to be specifically identified by the employer.
13.30	PRAS	Utilization	PRAS compliance for 1999 shows minimal improvement over 1998 levels and an overall low level of compliance. Because runway assignments are made by air traffic controllers over whom Massport has no authority, there is nothing to suggest that there will be increased compliance with an enhanced PRAS.	Massport has committed in its Section 61 Findings pursuant to the Massachusetts Environmental Policy Act, to work with the CAC to reassess the PRAS program, with the understanding that the current PRAS goals will remain in place until superseded. Conformance with the PRAS goals has improved since the enhanced PRAS was installed. However, the ability to approach the PRAS goals is ultimately limited by the weather and wind conditions, demand, and runway layout. Runway 14/32 would provide a high-capacity northwest runway configuration that would significantly improve flexibility and provide FAA controllers with the opportunity to increase PRAS performance relative to the No Action alternative. Massport and the FAA have signed a Memorandum of Understanding that commits the controllers to follow the PRAS recommendations whenever safety and demand permit. Massport's Section 61 mitigation committments include several new elements for an expanded PRAS monitoring and reporting system that could help enhance attainment of the PRAS goals. Refer to Section 8.5 of the Supplemental DEIS/FEIR for a discussion of more comprehensive monitoring and reporting methods and Chapter 4 and Appendix B of this Final EIS for more information on these mitigation committments.
13.31	PRAS	Utilization	In neighborhoods located between Forest Hills and the Arnold Arboretum, residents report a high level of aircraft noise which we believe reverberates between the two rises. With the anticipated 25 percent increase in the use of Runway 27 as a result of the proposed project and the continuing difficulty pilots experience in adhering to the prescribed Runway 27 flight path, Massport cannot continue to ignore the noise impacts in these areas. We reiterate our request that monitoring be established in this area.	The predicted increase in flights using Runways 27 and 33L for departure that would occur with the construction of Runway 14/32 has generated numerous public comments. While the increased departures to the west and northwest are consistent with the goals of Logan's Preferential Runway Advisory System (PRAS), community representatives have withdrawn their support for the existing PRAS system. With support from FAA, Massport has committed in its Section 61 Findings pursuant to the Massachusetts Environmental Policy Act, to work with the Community Advisory Committee (CAC) to reassess the PRAS program. In order to prevent a major change in Logan's runway utilization pending this reassessment of PRAS, the FAA in this Final EIS is proposing to restrict Runway 14/32 for use only during northwest or southeast winds of 10 knots or greater. In proposing this restriction, the FAA expects that the principal delay reduction benefits of the runway would be realized and that runway utilization at Logan Airport would remain consistent with recent patterns. Refer to Section 3.8 of the Final EIS for a discussion of the wind restriction analysis and Section 4.1.2 for operational implementation of the restriction. Regarding compliance with the Runway 27 flight tracks, both the Logan Airport 1997 Annual Update and Logan Airport 1998 Annual Update reported that aircraft were not achieving the goals of the 1996 FAA ROD issued in connection with Runway 27 Flight Procedures EIS and that further testing was needed to get improved conformance. The FAA is currently funding an

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				analysis of the procedure and meets periodically with the Runway 27 Advisory Committee to report interim findings. The Logan Airport 1999 ESPR (previously GEIR) reported on the Runway 27 Jet Departure Procedures on pages 6-14 and 6-15 and the Logan Airport 2000 Environmental Data Report (EDR) reported on Runway 27 departure tracks in Appendic H . The Runway 27 departure tracks are also discussed in Sections 5.2.3.2 and 6.3.2.2 of the Supplemental DEIS/FEIR. Massport gives regular consideration to the possibility of adding noise monitoring sites to its noise and operations monitoring system and will continue to do so when appropriate sites are identified, subject to the need to stay within operational capabilities and efficiency limits of the system's hardware and software. In late 1997, two monitoring stations (Site 27 at Boston Latin Academy in Roxbury and Site 29 at Lewenburg Middle School in Mattapan) were added to monitor Runway 27 noise impacts. Massport is currently working with community representatives from Jamaica Plain and Hyde Park to locate additional noise monitors in those communities.
13.32	Alternatives	Part 161	The 1999 ESPR upon which Massport relies heavily was not responsive to the EOEA Secretary's directive to "begin discussions with the FAA with the goal of restricting the number of aircraft overflights under Logan's flight paths, particularly in the period between 10 PM and 7 AM." Massport responded to this directive by indicating that it has initiated an investigation of noise data and, once the data is analyzed, it will implement voluntary measures to reduce or eliminate such noise events. The Secretary has not acknowledged Massport's failure to comply with the Certificate or instructed it to provide this information.	The comment is not related to this EIS. The Secretary of Environmental Affairs found the Final EIR to be adequate. However, federal aviation statutes and regulations, and contractual provisions related to Federal Airport Improvement Program grants prevent Massport from instituting a cap on total or nighttime operations at Logan Airport. Any access restrictions would require compliance with FAR Part 161. This process has proven difficult for airports because of the demanding legal requirements that must be satisfied for approval of mandatory access restrictions. The Part 161 process also requires that all reasonable alternatives to mandatory access restrictions be implemented first. To date, no airport has been able to obtain approval for Part 161 mandatory access restrictions. Given these restrictions, Massport has made an effort to influence airline behavior within existing constraints. For example, Massport has actively encouraged Logan's major airlines to replace hushkitted aircraft with newer and quieter Stage 3 equipment. In the past year, both Delta and USAirways have replaced hushkitted jets on their New York and Washington shuttle routes from Logan.
13.33	Alternatives	Part 161	By direction of the Secretary, the ESPR was also to detail steps that Massport and the FAA might "take to bring about limitations in the number of Stage 3 operations" at Logan and to discuss "the specific types of information needed to pursue a Part 161 waiver, including schedules and timetables." Massport has not provided the information, simply stating that "no airport has successfully achieved operational restrictions under the Part 161 regulations." The Secretary must require this data.	It is difficult for airports to obtain FAA approval for access restrictions on Stage 3 aircraft and there are no waiver provisions under the ANSA/FAR Part 161. Therefore, Massport has not proposed any formal changes to its noise abatement regulations which would require a Part 161 process. However, Massport continues to pursue alternatives. Refer to response to Comment 13.32.
13.34	Noise	55 dB DNL	Levels of 55 decibels outdoors and 45 decibels indoors are identified as preventing activity interference and annoyance by the U. S. Environmental Protection Agency (EPA) (EPA press release - April 2, 1974). This indicates that even the 60 decibel DNL contours required by the Secretary miss significant populations who are negatively affected by airport-related noise.	FAA and Massport understand that some people may be annoyed by noise less than 60 dB DNL; however, we disagree that the noise analyses in the Supplemental DEIS/FEIR overlook significant populations negatively affected by airport noise. EPA never said that 55 dB should be established as a standard. In a report entitled "Federal Agency Review of Selected Airport Noise Analysis Issues" published by the Federal Interagency Committee on Noise (FICON) in August 1992, whose participants included the U.S. EPA, HUD, Department of Veterans Affairs, and the President's Council on Environmental Quality (CEQ) in addition to U.S. DOT and DOD representatives, the document states "The protective levels [55 dB DNL] identified in the [U.S. EPA's] "Levels Document" do not constitute "standards" since they do not account for the cost or feasibility of achievement. [p 2-1]" And later, "While endorsing DNL, not all agencies apply the DNL

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				methodology in the same manner. Most agencies plot noise contours only for DNL > 65 dB. Some plot contours down to DNL 60 dB but generally on a case-by-case basis only. Others conduct point analyses down to DNL 60 dB for noise-sensitive areas such as schools, hospitals, and churches [p. 2-2]." Also, "Although analysis in areas with DNL values below 65 dB has been performed within existing federal agency procedures, such analysis has not been carried out in a uniform manner. For example, the U.S. Navy includes DNL 60 dB contours in their NEPA documents, but the FAA and U.S. Air Force routinely do not. [p. 3-5]." And finally, "The FICON Technical Subgroup report cautioned that noise predictions below DNL 65 dB should be characterized as to their relative accuracy and be done on a case-by-case basis. In view of these drawbacks and because public health and welfare effects below DNL 60 dB have not been well established, the FICON decided not to recommend evaluation of aviation noise impacts below DNL 60 dB [pp. 3-5 to 3-6]."
13.35	Mitigation	Noise	Massport plans to carry out an expanded two year soundproofing program and will not examine including other areas in the program until the two year period is completed. This position will result in continued, distressing noise impacts for many Boston residents.	Logan Airport has one of the most comprehensive and progressive sound insulation programs of any airport in the country. It was initiated in 1980 before any airport began receiving federal funding to soundproof homes under FAR Part 150. It is the only program in the country to offer residents extra sound insulation treatment in a “room of preference” chosen by the homeowner and it is the only program in the country that received FAA approval to expand the area of eligibility by accounting for hill effects. The FAA acknowledges that Massport has committed in its Section 61 Findings, pursuant to the Massachusetts Environmental Policy Act, to provide any additional funds that may be necessary to complete the sound insulation of eligible homes. Refer to Section 4.1.3 and Appendix B of this Final EIS.
13.36	Reduced Minimums	Impacts	We do not agree with the FAA’s assertion that lowering landing minimums will result in noise benefits for residents under the approach path to the runways in question. When a pilot performs a missed approach because he/she cannot see the runway, the FAA will close that particular runway and choose a secondary runway or, in a serious weather situation, close the airport until there is an improvement. Lowering the landing minimums is likely to result in the use of these runways more often during poor the weather conditions exposing nearby residents to noise levels which they currently do not experience.	When a missed approach occurs, the pilot powers-up the aircraft, executes a go-around, and usually re-approaches the runway. During conditions of variable cloud cover, the pilot is often able to make visual contact with the runway at the decision height on the go-around approach. Missed approaches are infrequent and occur mainly during periods of limited visibility. As discussed in the Reduced Minimums Case Study referenced in Appendix D of the Draft EIS/EIR, only 28 missed approaches occurred during a 6-month period in 1996 (February 1 to July 31). Since missed approaches are so infrequent they have no noticeable impact on measures of cumulative noise exposure such as DNL. However, reducing the approach minimums will result in a reduction of single-event noise impacts to the communities since the point at which a pilot initiates power-up would occur closer to the airport and farther away from residential areas.
13.37	Reduced Minimums	Impacts	Aircraft operations during inclement weather tend to expose nearby residents to higher noise levels than under normal operating conditions. The reasons for this are twofold. First, during severe weather conditions involving heavy winds and rain, a pilot must apply a greater level of thrust and adjust the aircraft’s flap setting to maintain stable flight. This results in higher noise levels and increased impacts for residents under the flight path. Second, a low cloud cover is usually present under the weather conditions that dictate the use of these lower landing minimums. When this situation occurs, noise levels from aircraft events are amplified in intensity and tend to last longer than on a clear day.	Runways proposed for reductions in minimums already have IFR minimums and pilots presently use these runways in poor and wet conditions. Reductions of these minimums to lower ceiling heights and visibility would have an insignificant effect on either aircraft power, flaps settings, or sound propagation, and therefore have no measurable impact on noise.

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13.38	Reduced Minimums	Safety	As noted in the DEIS/DEIR (Volume 1, p. 3-36), the City of Boston entered into an agreement with the FAA and Massport not to decrease the landing minimums on Runway 15R. It is our intention that this agreement should be respected and honored. The City's concerns are based on the premise that an arrival is the most difficult and challenging portion of a flight and that the poor the weather conditions that usually trigger the use of these lower landing minimums only serve to heighten the workload for pilots during this segment of a flight. With the high number of residents living alarmingly close to the touchdown point of these two runways, the lowering of the landing minimums will place these residents in additional peril.	Reduced landing minimums will have no significant impact on the number of bad weather landings at Logan Airport. Instead, reduced landing minimums will enhance safety by providing positive instrument guidance to a point closer to touchdown and will shift arriving flights from Runway 4R to runways more closely aligned with the prevailing wind direction. The reduced landing minimums do not change the approach path or glideslope of arriving aircraft. Rather, they shift the location along the approach path at which a missed approach decision is initiated to a point closer to the airport and away from communities. For Runways 27 and 22L, the reduced minimums will make the approach procedures flown by pilots more consistent with practices in effect at most other comparable airports. Refer to Section 3.9 of this Final EIS.
13.39	Health	Health Study	As this department and City's Environmental Services Cabinet noted in April 23, 1999 comments on the DEIS/DEIR, the Boston Public Health Commission (BPHC) believes that Massport, the FAA and the U. S . Department of Transportation (DOT) have failed to take the health of Boston residents into consideration in planning the proposed project.	The available public health studies for communities adjacent to Logan Airport were reviewed and are presented in Section 6.8 of the Supplemental DEIS/FEIR. Massport has been cooperating with the Commonwealth of Massachusetts and the City of Boston on public health issues and will continue to facilitate monitoring of airport-related emissions by DEP and others, by assisting in monitoring site selection and providing agencies with air quality data, airport activity data, and meteorological data. Finally, compared to the No Action Alternative, the Preferred Alternative would orient more flights over Boston Harbor, reduce noise in the areas experiencing the highest noise impacts, and improve air quality. These environmental benefits are not detrimental to the public health.
13.40	Environmental Justice	Requirements	The City asks that the FAA and DOT comply with this Executive Order (12898) and provide documentation and all relevant data to that effect. (EJ)	The Environmental Justice analysis in the Draft EIS/EIR, the Supplemental DEIS/FEIR, and this Final EIS complies with all applicable legal requirements. This analysis found that there is no high and adverse disproportionate impact to low-income and minority populations caused by the Preferred Alternative. The Environmental Justice analysis was updated based upon available 2000 U.S. Census data, and is presented in Section 3.6 of this Final EIS. Refer to also response to Comment 13.14.
13.41	Health	Health Study	The proposed Massachusetts Department of Public Health (MA DPH) survey is only one component of what should be a comprehensive health impact evaluation for Logan Airport. Because of the difficulty of adequately correcting data for multiple confounding variables, epidemiology-based studies may lack sufficient sensitivity to discern actual airport related health disparities. Modeling of health risk based on an air pollution emitter inventory and mobile sources accessing the airport is needed. Long term comprehensive fence-line monitoring of actual hazardous air pollutant emissions from Logan Airport is also needed to predict potential health impacts.	Compared to the No Action Alternative, the Preferred Alternative would orient more flights over Boston Harbor, reduce noise in the areas experiencing the highest noise impacts, and improve air quality. These environmental benefits are not detrimental to the public health. The available public health studies for communities adjacent to Logan Airport were reviewed and are presented in Section 6.8 of the Supplemental DEIS/FEIR. Public health status reports were available for the City of Boston; however, comparable public health reports were not available from the Public Health Departments of Chelsea, Revere, and Winthrop. A review of the available information did not indicate any causal relationship based on proximity to the airport, nor did it identify hearing loss as a public health concern. In January 1996, Massport reviewed available public health data, including mortality and morbidity from each neighborhood in Boston and cancer incidence data available from the Massachusetts Department of Public Health. These data indicated that causal relationships cannot be determined at this time. A review of the 1999 Report to the Mayor, Health of Boston prepared by the Boston Public Health Commission leads to a similar conclusion. In addition, Massport has shared the results of the Soot Deposition Study with public health agencies and is cooperating with the Harvard School of Public Health on the South Boston Particle Source

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				Apportionment Study. Massport has been cooperating with the Commonwealth of Massachusetts and the City of Boston on public health issues and will continue to facilitate monitoring of airport-related emissions by DEP and others, by assisting in monitoring site selection and providing agencies with air quality data, airport activity data, and meteorological data. Massport is also cooperating with the Commonwealth of Massachusetts Department of Public Health on their study of the relationship between air pollution and public health, focusing on respiratory and cardiovascular effects for communities within a five-mile radius of Logan Airport. In addition, Massport is conducting an air quality monitoring program in neighborhoods surrounding the airport. Monitoring results will be presented in the ESPR and annual updates.
13.42	Health	Health Impacts	To approve the proposed project without a full understanding of Logan's contribution to public health is a violation of the public trust and inconsistent with the intent and goals of Environmental justice.	The available public health studies for communities adjacent to Logan Airport were reviewed and are presented in Section 6.8 of the Supplemental DEIS/FEIR. Massport has been cooperating with the Commonwealth of Massachusetts and the City of Boston on public health issues and will continue to facilitate monitoring of airport-related emissions by DEP and others, by assisting in monitoring site selection and providing agencies with air quality data, airport activity data, and meteorological data. Finally, compared to the No Action Alternative, the Preferred Alternative would orient more flights over Boston Harbor, reduce noise in the areas experiencing the highest noise impacts, and improve air quality. These environmental benefits are not detrimental to the public health. The Environmental Justice analysis in the Draft EIS/EIR, the Supplemental DEIS/FEIR, and this Final EIS complies with all applicable legal requirements.
13.43	Capacity	Increased Capacity	The City of Boston views the proposed project as solely a capacity enhancement plan. The capacity issue at Logan is only one part of a New England transportation system that must be addressed on regional, inter- and multi-modal levels.	Since Runway 14/32 will prevent the drop in capacity that currently occurs when northwest winds force Logan to operate to the northwest, it will increase the amount of time that Logan Airport can operate on three runways. It will not, however, increase Logan's maximum three-runway capacity of approximately 120 hourly operations that is available around 80 percent of the time. This capacity level is consistent with the FAA's Airport Capacity Benchmarking Report 2001, which states that Logan's good weather capacity is between 118 and 126 hourly operations and that construction of Runway 14/32 will not increase this capacity. Making the three-runway capacity level available more often increases the reliability of the airport and reduces delays. The FAA and Massport are both active proponents of regional efforts to lessen New England's reliance on Logan Airport. Several regional transportation studies undertaken in the early 1990s recommended expanded roles for regional airports, and development of high-speed rail as well as infrastructure improvements at Logan Airport for meeting the region's future travel needs. Federal, state and local agencies throughout the region share the goal of improving New England's transportation network and have already begun to work, both independently and cooperatively, to achieve that goal. Great strides have been made in the last decade. Regional airports have become meaningful alternatives to Logan Airport for certain market segments. Passengers traveling to and from New York can now choose high-speed rail over air travel. To further the role of regional airports, the FAA, Massport, the Massachusetts Aeronautics Commission, the other 5 New England states, the Manchester Regional Airport, and the Rhode Island Airport Corporation are conducting the New England Regional Aviation System Plan, a continuation of the 1995 New England Regional Airports Air Service Study. The study will forecast long-term passenger and cargo demand for the entire region, identify operational capacity and environmental constraints to growth, and formulate strategies for maximizing regional airport use and creating a

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				balanced and efficient regional airport network. Regional airport, aviation and transportation planning officials from each of the six New England states will participate in the study. While greater use of the regional airports and high-speed rail will provide relief to Logan Airport, these initiatives fail to address a significant source of Logan's airside delays. The Preferred Alternative provides clear benefits at recent and future traffic levels by reducing preventable delays that occur during northwest wind conditions. Northwest wind delays at Logan Airport, which inconvenience and create unnecessary costs for hundreds of thousands of air passengers each year, cannot be mitigated through regional alternatives.
13.44	Regional Transportation	Alternatives	In order to ensure the development and implementation of a functional system that will have credibility with the public, we recommend that a regional panel of experts be convened to immediately assess the overall state of transportation in the region, develop strategies for both short- and long-term regional transportation needs and identify a variety of transportation options available for the traveling public and the movement of goods. Communities in the region must be fairly and adequately represented on such a panel along with public officials, economists, land use planners, transportation professionals, and representatives of transportation industries, environmental and public health interests.	To further the role of regional airports, the FAA, Massport, the Massachusetts Aeronautics Commission, the other five New England states, the Manchester Regional Airport, and the Rhode Island Airport Corporation are conducting the New England Regional Aviation System Plan, a continuation of the 1995 New England Regional Airports Air Service Study. The study will forecast long-term passenger and cargo demand for the entire region, identify operational capacity and environmental constraints to growth, and formulate strategies for maximizing regional airport use and creating a balanced and efficient regional airport network. Regional airport, aviation and transportation planning officials from each of the six New England states will participate in the study. The study will include a forum for peer review and the sharing of information with experts in other transportation disciplines. Peer review will be provided by a panel of independent experts from area colleges and universities as well as representatives from the U.S. DOT's Inter-Modal Working Group, which consists of experts from the Federal Highway Administration, the Federal Transit Authority, and the Federal Rail Administration, in addition to the FAA. Also, the Volpe National Transportation Systems Center has been added to the Project Team to provide analysis of rail options.
13.45	Runway 14/32	Construction Costs	The anticipated cost for the Airside Improvements project was not disclosed in either the DEIS/DEIR or the Supplemental DEIS/FEIR, an omission that cannot be inadvertent. We understand the current estimate to be about $76,000,000. This figure should be corrected or confirmed and accurate projections for the cost of each project element should be divulged.	Construction costs for the Preferred Alternative were presented in the Supplemental DEIS/FEIR. Updated costs which include design, engineering, construction, and contingencies are presented in this Final EIS. Please refer to Table 2.3-3 of this Final EIS, which shows a total estimated construction cost estimate of $143,400,000.
13.46	Regional Transportation	Alternatives	Upgrading baggage handling and passenger amenities at Laurence G. Hanscom Field, arranging for bus service to Hanscom, Worcester Airport and Manchester Airport from Logan Express locations, expanding Logan Express service outside of Route 495 and improving high occupancy vehicle (HOV) ground access to other modes of interstate travel are just three examples of alternative actions that might be part of an effective, less costly delay-reduction plan.	Initiatives to improve the efficiency of the New England's regional airport system and ground access connections to/from the airports can reduce the region's heavy reliance on Logan Airport, but they are not a substitute for the Preferred Alternative. Improving the efficiency of Logan Airport is a critical component of a successful regional transportation plan because it benefits the largest segment of New England's air passenger market. The immediate area served by Logan Airport, Boston and its surrounding suburbs, is the single largest generator of resident air trips in New England. The greater Boston metropolitan area is also the most popular New England destination for visiting business and leisure air passengers. Reducing delays at Logan Airport produces immediate benefits to the greatest number of New England air passengers. Regional transportation initiatives do not address a unique aspect of airside delays at Logan Airport. While Logan Airport's normal airfield capacity is approximately 120 operations per hour, the airport cannot maintain this

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				capacity during moderate to strong northwest wind conditions because of a deficiency in the airfield layout. Logan can only operate on one or two runways during moderate to strong northwest winds compared to the typical three-runway configurations used in all other VFR conditions. Increased use of regional airports will not prevent the decline in Logan Airport's capacity that occurs under northwest wind conditions. Construction of Runway 14/32 is the only measure that would allow Logan Airport to maintain its normal operating capacity during northwest wind conditions. The New England Regional Aviation System Plan will explore innovative ground access measures to increase the use of regional airports. Refer to Appendix C of this Final EIS. Massport is also evaluating the possibility of utilizing Logan Express sites for third-party bus services to the regional airports, i.e., Manchester, T.F. Green and Worcester. See Appendix B, Section 61 Findings, pursuant to the Massachusetts Environmental Policy Act, of this Final EIS.
13.47	Runway 14/32	Cost-Benefit Analysis	The City of Boston believes that a cost/benefit economic analysis of the project must be conducted by an independent, unbiased entity using 2001 dollar figures. Such an analysis should examine the potential benefits of improving other, existing air travel facilities, alternative modes and ground transportation to water, rail and other modes of travel.	The Airside Project Draft EIS/EIR and the Supplemental DEIS/FEIR documents comply with all applicable NEPA requirements and provide appropriate analytical context for assessing alternatives. A cost-benefit analysis is not required by federal law. According to 40 CFR Part 1502 Environmental Impact Statements Regarding Cost-Benefit analysis "for purposes of complying with the act, the weighing of the merit and drawbacks of the various alternatives need not be displayed in a monetary cost-benefit analysis…"
13.48	Regional Jets	Fleet Mix	The Massport Logan Community Advisory Committee (CAC) has conducted a detailed evaluation of the Supplemental DEIS/FEIR and makes a compelling argument that Massport's fleet mix projections are erroneous, particularly when estimating regional jet traffic. The evaluation, well-reasoned and based upon information from the airline industry, concludes that airlines are moving toward increased use of regional jets and that Runway 14/32 will not serve a fleet requiring more than 5,000 feet of runway length. Massport should be required to re-assess its fleet projections and provide evidence for its conclusions.	The CAC analysis of the regional jet fleet mix includes several carriers with large fleets of Canadair CRJ's, but with little or no presence at Logan Airport. By failing to consider which carriers are likely to have a significant presence at Logan, the CAC analysis overestimates the future role of the Canadair CRJ at Boston. American and Delta, the leading RJ operators at Logan, are undertaking terminal redevelopment projects, and each has forecast a significant number of future RJ operations at Logan. American has projected its future RJ fleet at Logan to be comprised exclusively of Embraer models, while Dornier regional jets make up approximately 75 percent of Delta's future RJ fleet at Logan. US Airways, Logan's 3rd leading operator of regional jets, currently operates only Embraer ERJs at Logan through its regional affiliate, Chautauqua Airlines. The RJ fleet and orders of "carriers likely to operate at Logan" as described by the CAC are heavily weighted by the fleets of Comair and Atlantic Southeast Airlines (ASA), two of Delta's regional carrier affiliates that both operate substantial fleets of Canadair CRJs but have little or no presence at Boston. Atlantic Southeast's network is focused at Atlanta and Dallas/Ft. Worth and the carrier has no flights at Logan. Comair RJ flying is concentrated at Cincinnati and the carrier operates only 4 of its system wide 770 daily RJ departures at Boston (July 2001). Delta's principal regional partner at Boston is AC Jet which operates 42 of the carrier's 46 daily RJ departures from Logan, all with Dornier 328Jets. By including carriers with industry leading fleets of CRJ aircraft but with little or no presence at Logan, the CAC analysis substantially exaggerates the likely future role of the Canadair CRJ at Logan. This overstatement is relevant since the FAA's independent review of probable RJ use of the proposed 5,000 foot runway indicated that all RJ models except the CRJ were likely to use the runway. The 37.5M High RJ Fleet was specifically developed and analyzed for the Supplemental DEIS/FEIR to determine how significantly expanded regional jet usage would affect the operational and environmental benefits and impacts of the proposed airside improvements at Logan. The 37.5M High RJ fleet scenario contains 184,000 annual regional jet operations at Logan, or

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				more than twice the 2001 level. Based on the FAA's analysis of regional jet usage of the proposed 5,000 foot Runway 14/32, the Embraer 135/145 models would use the runway for arrivals during dry weather conditions, and the Dornier 328 Jets would use the runway during all weather conditions. Under these assumptions, when Runway 14/32 is in use it would be utilized for arrivals by approximately 70 percent of the projected future RJ fleet mix at Logan. Refer to Section 3.3 of this Final EIS. The analysis of the Preferred Alternative under the 37.5M High RJ fleet produced results that were similar to the analysis of the original fleet forecasts and still clearly demonstrates the benefits of the Preferred Alternative. In addition, a near-term 29M RJ fleet was analyzed in this Final EIS to examine the near-term impacts of regional jets. The 29M RJ fleet falls between the 29M Low and 37.5M High RJ fleets in terms of the number of regional jet aircraft. The results of the 29M RJ analysis, as described in Sectoin 3.4 of this Final EIS, are also consistent with the findings of the Draft EIS/EIR and Supplemental DEIS/FEIR, i.e., the Preferred Alternative produces substantial delay reduction benefits and reduces the number of people exposed to the highest noise levels (exceeding 75 and 70 db DNL). Furthermore, a sensitivity analysis for the 37.5M High RJ fleet demonstrated that the majority of the delay reduction benefit would be retained, even at levels of regional jet use significantly below those identified by the FAA. For example, under the pessimistic low utilization assumptions, the sensitivity analysis indicates that 23 percent of Logan's future RJ fleet would be able to land on Runway 32, and runway delays would be reduced by over 20 percent. Refer to Section 4.7.5 Sensitivity to Regional Jet Runway Use, in the Supplemental DEIS/FEIR, and Section 3.3.5.1 of this Final EIS for a discussion of the sensitivity analysis. Logan's two largest regional jets operators, American Eagle and AC Jet (a Delta Connection carrier), have provided letters confirming their intentions to use Runway 14/32 when it becomes operational. Refer to Appendix F of this Final EIS for letters from these airlines as well as other airlines and the Air Transport Association.
13.49	Water Quality	Impacts	Response to Comment # 37.1 2 under the topic of Water Quality - Stormwater states that "The construction of the Centerfield Taxiway or Runway 14/32 would not affect the drainage system for the North Pollution Control Facility. Similarly, the drainage system for the Maverick Street and Porter Street outfalls would be unaffected by the proposed taxiway construction.'' This response does not address the effect of the construction of Runway 14/32 on the Maverick and Porter Street outfalls.	The North and West Outfalls are equipped with water pollution control devices such as oil/water separators and grit collectors, and were upgraded in Spring 2000. The construction of the Centerfield Taxiway or Runway 14/32 would not affect the drainage system for the North Pollution Control Facility. Similarly, the drainage system for the Maverick Street and Porter Street outfalls would be unaffected by the proposed runway and taxiway construction. Construction, however, would occur in portions of the drainage area for the West Outfall and a number of the smaller culverts that drain the airfield. Approximately 55 acres of the airfield drainage will be redirected from the West Outfall to existing perimeter drains. The perimeter drains will be directed through a low-flow chamber sized to handle the first flush of stormwater before being discharged. This reconfiguration is shown in Figure 6.6-1 of the Supplemental DEIS/FEIR. The reconfiguration results in an 18 percent reduction in the drainage area for the West Outfall. The reduction in flow of generally uncontaminated airfield drainage is expected to increase the efficiency of the West Outfall to treat flow from the terminal areas. As described in Section 6.6.4 of the Supplemental DEIS/FEIR, Best Management Practices will continue to be implemented to minimize the discharge of sediment.

Code	Topic 1	Topic 2	Comment	Response
13.50	Water Quality	Impacts	The lack of required monitoring leaves the Boston Conservation Commission (BCC) unable to independently assess the affect of stormwater runoff from "non-industrial'' sources.	As a condition of the NPDES Permit, Massport monitors water quality for pH, oil and grease, and settleable solids three times each month at the North, West, Porter and Maverick outfalls. These outfalls include all drainage from the terminal and fuel farm areas, and some runway and infield areas. The monthly monitoring is conducted (1) in dry conditions; (2) in wet weather conditions and (3) immediately following a storm event. This sampling and other monitoring has helped Massport to improve permit compliance significantly. During 1998, there was 100 percent compliance for pH. Oil and Grease limits compliance was 100 percent at the West Outfall; 97 percent at the North and Maverick Outfalls; and 94 percent at the North Outfall. A copy of the 1998 Water Quality Management Update is contained in the Logan Airport 1998 Annual Update and additional information is provided in Appendix I of that document. (Refer to Table of 1998 NPDES Compliance and Summary of 1995-1998 Compliance Averages). Massport's outfall sampling summary for Logan Airport in 1999 is contained in Appendix H of the 1999 ESPR. The data for 2000 is presented in the 2000 Environmental Data Report.
13.51	Air Quality	Air Quality Initiative	Massport must identify and implement measures to prevent further air quality degradation in addition to the NOx and vehicle trip caps we have suggested.	The Airside Project will decrease air emissions from airport operations in comparison with the No Action Alternative. In addition, FAA notes that Massport has developed, and EOEA approved, the Logan Air Quality Initiative (AQI) as a means of reducing the growth of air emissions associated with Logan Airport. Although the primary aim of the AQI is the mitigation of NOx emissions, many of the measures will also result in substantial reductions in other air pollutants (e.g., CO, VOCs, particulate matter). According to Massport, until financial conditions return to pre-September 11th standards, implementation of the AQI is not feasible. Nonetheless, Massport is committed to the program and the progress of the AQI, as well as other air quality improvement programs already in-place at Logan Airport, will be reported on annually in the Logan Airport Environmental Statue Planning Report (ESPR) or its annual update, the Environmental Data Report. The FAA expects that the AQI will be implemented in a manner consistent with applicable federal law. These air quality initiatives are not part of the Airside Project.

Letter 14

June 5, 2001

Secretary Robert Durand
Executive Office of Environmental Affairs
C/O MEPA Unit
251 Causeway Street, Suite 900
Boston MA 02114

John Silva
Environmental Program Manager
Federal Aviation Administration, NE Region
Airport Division
12 New England Executive Park
Burlington, MA

Re: Logan Airside Improvement Planning Project, Runway 14/32 Addition, SDEIS/Final EIR, EOEA #10458.

Dear Secretary Durand,

The Boston Public Health Commission believes that the environmental impacts from Logan Airport and the proposed additional runway and taxiway improvements have not been adequately addressed. We therefore request that your acceptance of a Final Environmental Impact Report be withheld until the environmental impacts of the project have been adequately addressed. At a minimum, the following additions are needed to enable responsible environmental impact consideration and transportation planning:

- Comprehensive **upwind and down wind fence line monitoring** of HAPs and other existing carcinogenic emissions from the airport. 14.1
- Comprehensive **airport emissions modeling and Risk Assessment** similar to that done for the city of Park Ridge, Illinois by Environ Corporation published in August 2000. Any Risk Assessment should consider existing background cancer and non-cancer risk levels from air pollutants similar to that published by the Environmental Defense organization. The impact of regional population growth needs to be incorporated into such modeling.
- Comprehensive **epidemiological evaluation of past and current existing community health outcomes** with respect to the Logan Airport under the guidance of the MA DPH. There has been a legislative enactment and funding for such a project. However, an 14.2

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epidemiological evaluation alone is not sufficient, it needs to be supplemented by an emissions inventory and mobile source impact modeling as well as fenceline monitoring of hazardous air pollutants.

- Establishment of a noise and emissions cap for Logan Airport within the SIP for Massachusetts. 14.3
- Comprehensive regional air pollution control planning within the MA SIP to ensure that Boston and the surrounding communities do not bear a disproportionate share of air pollution impacts and health risk from new development and transportation. 14.4
- This work should be subject to MA DPH oversight with the guidance of a committee of air pollution experts chosen from academia, business, transportation, environmental advocacy, and local government.

An alternative analyzed within the EIR should be that all airport infrastructures would eventually be utilized at its maximum possible capacity. Predictions of long-term population growth should be made and the transportation infrastructure and environmental protection needs to support this population addressed through careful planning.

The following issues demonstrate the need for additional environmental impact review:

1. According to the Massachusetts Executive Office of Environmental Affairs, Logan Airport is currently the largest single source of NOx pollution in Suffolk County (and the 6th largest in the State) and is expected to become the largest NOx emitter in Massachusetts. NOx pollution causes smog, which exacerbates respiratory disease including asthma, and reduces visibility. 14.5

2. While great progress has been made in improving the ambient air quality since enactment of the Clean Air Act in 1970, health risk to the public from air pollutants remain higher than the EPA's acceptable level of risk. Hazardous Air Pollutants in Suffolk County are estimated by an Environmental Defense Risk Assessment to be responsible for an added lifetime cancer risk of 300 cases per 1,000,000 persons exposed.

3. According to Environmental Defense, the 663,906 persons living in Suffolk County (1990 census) face an added cancer risk from exposure to hazardous air pollutants in excess of 1 per 10,000 persons or more than 100 times greater than the goal set by the Clean Air Act.

4. The Suffolk County Hazard Index for non cancer health effects reported by the Environmental Defense Risk Assessment is 8.9, almost nine times the acceptable level of risk.

5. Approximately 69% of the population hazardous air pollutant cancer risk is attributed to mobile sources. A major reduction of existing transportation-related emissions is necessary to reduce the cancer risk from air pollution in Suffolk County. Such a reduction can only be achieved through a major change in the way transportation services are provided.

6. Logan Airport is a major provider of transportation services and their emissions. The number of aircraft arrivals and departures at Logan Airport is expected to increase with additional business and passenger need for air services. Even without an additional runway, airport emissions will likely increase in proportion to increasing services. An article published March 30, 2001 in the Seattle Post Intellegencer indicates that Boeing will be transitioning from the marketing of very high capacity aircraft (747-400, 416 passengers, 0.85 Mach) to lower capacity (175 – 250 passenger) high-speed aircraft (Sonic Cruiser, >0.95 Mach). The high-speed aircraft is predicted to burn as much as 40 percent more fuel. The predicted number of future aircraft arrivals and departures should reflect the development of the Sonic Cruiser. 14.6 14.7

7. An additional runway at Logan Airport can be expected to enable increasing the future number of aircraft arrivals and departures beyond what can be accommodated by existing runway systems today further increasing air pollution. 14.8

8. The noise impacts on nearby residential areas also can be expected to increase in proportion to increases in the number of aircraft arrivals and departures. According to the EIS/EIR Winthrop and East Boston are most affected by noise exposure from Logan operations, with significant numbers of residents experiencing noise greater than 70 decibel (dB) Day-Night Sound Level (DNL), and some experiencing it at levels above 75 dB. In 1993 a World Health Organization (WHO) report entitled *Community Noise* reviewed the international scientific evidence and found that noise gave rise to a large number of health problems. These include: 14.9

- Hearing impairment
- Hearing pain
- Increased sensitivity to noise and annoyance
- Interference with communication and speech perception
- Sleep disturbance
- Psycho-physiological reactions during sleep (including effects on heart rate, finger pulse and respiration)
- Cardiovascular effects (e.g. Ischaemic heart disease)
- Stress
- Dulled startle reflex and orienting response
- Other effects on physical and psychological health including: nausea, headaches, irritability, argumentativeness, reduction in sexual drive, anxiety, nervousness, insomnia, abnormal somnolence and loss of appetite
- Mental disorders
- Impaired task performance and productivity
- Deficits in reading acquisition in children
- Damaging effects on positive social behavior.

WHO recommended that maximum outdoor noise levels should not exceed 55 dB. 14.10

The WHO report also found that noise has a detrimental impact on children's education. In noisy environments, infants and pre-school children suffer problems with cognitive development and school children learning to read do so more slowly. This was 14.11

corroborated by a report by the National Resources Defense Council (NRDC) conducted with children in the vicinity of La Guardia and JFK airports.

9. The number of passenger motor vehicle trips through East Boston and other nearby communities will increase with expansion of passenger service at Logan Airport and expand land traffic impacts. 14.12

10. The number of commercial motor vehicle trips to East Boston will increase in proportion to the number of freight aircraft trips to Logan Airport and expand land traffic impacts. 14.13

11. The number of commercial motor vehicle trips to East Boston will also increase in proportion to the number of passenger flights, as additional passengers require additional support services.

12. The main motor vehicle arteries into and out of Boston are already heavily congested which is generating bypass traffic onto residential streets as commuters and business deliveries seek to avoid delay.

13. The time needed to commute into and out of Boston by car is increasing and the percentage of the weekday hours during which significant congestion exists is increasing.

14. Congestion of major traffic arteries on weekends is increasing due to population growth.

15. Because of a growing population in East Central New England, there is an increasing demand by persons and businesses in Boston and other Eastern Massachusetts communities for aircraft transportation services. Unless aircraft transportation needs are accommodated, the regional quality of life and economy will be adversely impacted.

16. Although aircraft transportation needs and benefits are regional, most aircraft transportation services occur at Logan Airport. Adverse airport impacts, unlike the airport's benefits, are almost entirely local. Airport-related nuisances and adverse effects are disproportionately impacting East Boston, Winthrop, Chelsea, Somerville, Everett, Charlestown, South Boston and other nearby communities. 14.14

17. The preponderance of Massachusetts's low income and minority populations is concentrated in and around Boston. Expansion of air pollution impacts from Logan Airport would disproportionately adversely impact low income and minority populations.

18. Careful planning for current and future regional transportation needs is necessary to ensure continued prosperity without further concentration of adverse air pollution impacts in Boston with its increased air pollution related morbidity and mortality.

19. Existing airport emissions data suggests that airport air pollution emissions are adversely impacting on the health of nearby communities. A Risk Assessment commissioned by the city of Park Ridge, Illinois published in August 2000 demonstrates that air pollutant emissions from O'Hare airport is significantly adversely impacting Chicago area 14.15

communities. The Risk Assessment calculations were based on conservative toxic emissions data generated in 1999 by Chicago's consultant, KM Chng Environmental. Inc. Calculations were also based on a Mostardi-Platt study involving airport fenceline sampling and analysis of 219 volatile compounds. O'Hare airport contributes significantly to down wind particulate matter ($PM_{2.5}$) exposures. Added cancer risk from the airport exceeded 1 case per 10^{-5} persons exposed within 3 miles. Cancer risk attributable to the airport exceeded the EPA goal of 1 x 10^{-6} in 98 Chicago communities. The non-cancer Hazard Index at the airport fence line ranged up to approximately 23. While data from Chicago is not directly applicable to Logan Airport, there is a very high likelihood that a comprehensive risk assessment of emissions from Logan Airport and other airports of similar capacity would also demonstrate excess cancer risk in nearby communities and an elevated Hazard Index at and beyond the airport boundary.

20. Massachusetts Institute of Technology, Department of Urban Studies and Planning, has prepared a report "Community Risk Assessment, Air Quality in Chelsea and East Boston" for the Chelsea Creek Action Group. The report is dated May 18, 2001. Although all air pollutant emitters (VOCs) could not be identified for calculating maximum cancer risk and hazard index, cancer risk in East Boston, Charlestown, South Boston, downtown Boston, Chelsea, and Winthrop exceeded 1 x 10^{-6} with the highest levels of cancer risk centered on Logan Airport. These data underscore the need for a comprehensive study incorporating all identifiable fixed and mobile pollutant emitters. 14.16

21. Related to emissions from Logan Airport is a Winthrop Airport Hazards Committee survey. The data from this study demonstrate significantly elevated Relative Risks of asthma and allergy in the district of Winthrop closest to the airport (0.4 miles), 2.18 and 1.97 respectively. The was also an elevated relative risk of chronic sinusitis (1.41) that was strongly correlated (p=0.085) but not quite statistically significant. This study underscores the need for a comprehensive and scientifically rigorous evaluation of current and future impacts. 14.17

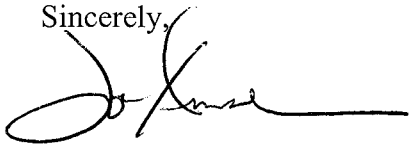
A high percentage of the people of color who reside in Massachusetts live in Boston and surrounding communities. Boston's minority population increased significantly from 1990 to 2000. This growth has not been addressed by the SDEIS/Final EIR. East Boston has seen a high growth of its minority population. 14.18

Massachusetts minority groups experience higher rates of respiratory disease than the general population of Massachusetts. In the interest of environmental justice, they should not be subjected to a disproportionate share of airport air pollution impacts.

While Boston and nearby communities share the essential benefits from Logan Airport with other Massachusetts communities, communities in Southern New Hampshire and communities in Northern Rhode Island, they must bear almost all of the airport's adverse impacts. In this regard, the airport is reminiscent of the former Deer Island sewage treatment plant from which the Boston Harbor communities were subjected to significant water pollution impacts while more than 40 Massachusetts communities received the essential economic and sanitation benefits from the facility without having to bear any appreciable adverse impact. 14.19

The proposed project cannot take place until the environmental impact review process has been completed. The current SDEIS/Final EIR leaves many issues vital to the protection of the public health unanswered. There are no plans yet in existence to resolve the issues. No expansion of Logan Airport should be permitted through approval of the SDEIS/Final EIR until it can be determined how the regions essential air transportation needs can be accommodated without disproportionate adverse impact on Boston.

Sincerely,



John Auerbach
Executive Director

Boston Public Health Commission John Auerbach

Code	Topic 1	Topic 2	Comment	Response
14.1	Air Quality	HAP emissions	...the following additions are needed to enable responsible environmental impact consideration: Comprehensive upwind and down wind fence line monitoring of HAPS and other existing carcinogenic emissions from the airport.	The Massachusetts Department of Environmental Protection (DEP) has monitored EPA criteria air pollutants (e.g. CO, NO2, SO2, PM) in close proximity to Logan Airport for several years at the Bremen Street site. Notably, this monitoring data has not identified any violations of the Ambient Air Quality Standards over this timeframe. Although hazardous air pollutants (HAPS) are not included, these results are a good indicator of the conditions near Logan Airport. Massport has been cooperating with the Commonwealth of Massachusetts and the City of Boston on public health issues and will continue to facilitate monitoring of airport-related emissions by DEP and others, by assisting in monitoring site selection and providing agencies with air quality data, airport activity data, and meteorological data.
14.2	Health	Health Study	...the following additions are needed to enable responsible environmental impact consideration: Comprehensive epidemiological evaluation of past and current existing community health outcomes with respect to the Logan Airport under the guidance of the MA DPH. There has been a legislative enactment and funding for such a project. However, an epidemiological evaluation alone is not sufficient, it needs to be supplemented by an emissions inventory and mobile source impact modeling as well as fenceline monitoring of hazardous air pollutants.	The Preferred Alternative is expected to reduce air emissions in comparison to the No Action Alternative. The Massachusetts Department of Public Health is conducting a study of the relationship between air pollution and public health, focusing on respiratory and cardiovascular effects for communities within a five-mile radius of Logan Airport. Also refer to response to Comment 14.1.
14.3	Air Quality	NOx Emissions	...the following additions are needed to enable responsible environmental impact consideration: Establishment of a noise and emissions cap for Logan Airport within the SIP for Massachusetts.	The AQI is not a part of the Airside Project and the Commonwealth of Massachusetts SIP is not a matter over which FAA exercises control. However, if the Department of Environmental Protection (DEP) establishes an inventory cap for Logan Airport based on the Air Quality Initiative (AQI), any growth at Logan Airport causing the cap to be exceeded would arguably be "inconsistent with the SIP." In addition, any noise-related access restrictions would require compliance with FAR Part 161. This process has proven difficult for airports because of the demanding legal requirements that must be satisfied for approval of mandatory access restrictions. The Part 161 process also requires that all reasonable alternatives to mandatory access restrictions be implemented first. To date, no airport has been able to obtain approval for Part 161 mandatory access restrictions.
14.4	Air Quality	SIP	...the following additions are needed to enable responsible environmental impact consideration: Comprehensive regional air pollution control planning within the MA SIP to ensure that Boston and the surrounding communities do not bear a disproportionate share of air pollution impacts and health risk from new development and transportation. This work should be subject to MA DPH oversight with the guidance of a committee of air pollution experts chosen from academia, business, transportation, environmental advocacy, and local government.	This is not related to the Airside Project EIS/EIR, however, the U.S. EPA, Massachusetts DEP and EOEA work together with other state and local agencies to develop, implement and monitor the State Implementation Plan (SIP). This plan is intended to serve as a strategy for managing air quality conditions and the air resources of the Commonwealth, including the Boston area. Under the Federal Clean Air Act (CAA), federally-approved or funded projects must be shown to be in conformance, or comply, with the SIP. In this way, individual projects or communities are safeguarded from unacceptable impacts and the goals of the SIP are not compromised. Because this project has been shown to generate fewer emissions with its implementation than without, it meets the requirements of the CAA General Conformity Rule and complies with the SIP.

Code	Topic 1	Topic 2	Comment	Response
14.5	Air Quality	NOx Emissions	According to the Massachusetts Executive Office of Environmental Affairs, Logan Airport is currently the largest single source of NOx pollution in Suffolk County (and the 6th largest in the State) and is expected to become the largest NOx emitter in Massachusetts. NOx pollution causes smog, which exacerbates respiratory disease including asthma, and reduces visibility.	By far, the largest source of NOx emissions in Massachusetts is motor vehicles. Aircraft emissions are only two percent of Massachusetts NOx emissions. Even if one aggregates all the separate stationary sources of air pollution at Logan Airport into a single "source", the NOx emissions are minor in comparison to other stationary sources in Massachusetts. It is important to note that federal procedures do not account for aircraft emissions as a stationary source.
14.6	Air Quality	Impacts	Logan Airport is a major provider of transportation services and their emissions. The number of aircraft arrivals and departures at Logan Airport is expected to increase with additional business and passenger need for air services. Even without an additional runway, airport emissions will likely increase in proportion to increasing services.	This comment is not related to the Airside Project. Nevertheless, Massport notes a number of factors affect the types and amounts of air emissions associated with surface and air traffic at Logan Airport. With increased passengers and operations, emissions from motor vehicles and aircraft is expected to increase. However, this increase is expected to be off-set in future years as newer, more efficient, cleaner burning engines replace those on the existing motor vehicle and aircraft fleets. Moreover, Massport staff are continually developing and implementing emission reduction measures. Many of these are identified in the ESPR or the annual EDRs filed with EOEA.
14.7	Fleet Mix/Forecasts	Sonic Cruiser	An article published March 30, 2001 in the Seattle Post Intelligencer indicates that Boeing will be transitioning from the marketing of very high capacity aircraft (747-400, 416 passengers, 0.85 Mach) to lower capacity (175 - 250 passenger) high-speed aircraft (Sonic Cruiser, >0.95 Mach). The high-speed aircraft is predicted to burn as much as 40 percent more fuel. The predicted number of future aircraft arrivals and departures should reflect the development of the Sonic Cruiser.	Boeing's Sonic Cruiser is in the preliminary conceptual design phase. As of this writing the aircraft is not in production and there are no commitments from any airlines to purchase this aircraft. The Boeing Sonic Cruiser has not been included in the future fleet analyzed.
14.8	Capacity	Increased Capacity	An additional runway at Logan Airport can be expected to enable increasing the future number of aircraft arrivals and departures beyond what can be accommodated by existing runway systems today further increasing air pollution. The noise impacts on nearby residential areas also can be expected to increase in proportion to increases in the number of aircraft arrivals and departures.	By preventing the drop in capacity that currently occurs when northwest winds force Logan to operate to the northwest, Runway 14/32 will increase the amount of time that Logan Airport can operate on three runways. It will therefore increase the average capacity of the airport. It will not, however, increase Logan's normal three-runway capacity of approximately 120 hourly operations that is available around 80 percent of the time. This capacity level is consistent with the FAA's Airport Capacity Benchmarking Report 2001, which states that Logan's good weather capacity is between 118 and 126 hourly operations and that construction of Runway 14/32 will not increase this capacity. Making Logan's normal three-runway capacity level available more often increases the reliability of the airport and reduces delays. Since Runway 14/32 will not increase Logan's normal three-runway capacity, it will not increase aircraft operations or aircraft emissions. In fact, a comparison of the Preferred Alternative and the No Action Alternative for future demand levels shows that the Preferred Alternative results in slightly lower aircraft emissions and reduced noise for the most highly impacted populations in the 75dB and 70dB DNL contours. Refer to Section 3.5 of this Final EIS for more information.

Boston Public Health Commission John Auerbach

Code	Topic 1	Topic 2	Comment	Response
14.9	Health	Noise Impacts	The noise impacts on nearby residential areas also can be expected to increase in proportion to increases in the number of aircraft arrivals and departures. According to the EIS/EIR Winthrop and East Boston are most affected by noise exposure from Logan operations, with significant numbers of residents experiencing noise greater than 70 decibel (dB) Day-Night Sound Level (DNL), and some experiencing it at levels above 75 dB. In 1993 a World Health Organization (WHO) report entitled Community Noise reviewed the international scientific evidence and found that noise gave rise to a large number of health problems.	Analysis of noise impacts of the various airside alternatives was performed and is described in Chapter 6 of the Airside Project Draft EIS/EIR and Chapter 6 of the Supplemental DEIS/FEIR. The analysis shows that noise impacts are not expected to increase proportionately with increases in aircraft operations. For example, the Preferred Alternative would divert more aircraft operations over Boston Harbor and away from residential communities. The FAA as well as the Federal Interagency Committee on Aviation Noise (FICAN, a special government committee which includes among its members the U.S. EPA and HUD) recognize a DNL of 65 dB or above as indicative of significant noise impact. The Airside analysis indicates that in all future scenarios the Preferred Alternative would reduce noise impacts to the populations exposed to the highest noise levels above DNL 70 dB, particularly in East Boston and Winthrop. Under the 29M Low fleet, the Preferred Alternative would reduce the population in East Boston above 70 dB DNL by 9 percent and above 75 db DNL by 100 percent, compared to the No Action Alternative. Similarly, the population in Winthrop exposed to 70 db DNL would be reduced by 2 percent and the population exposed to 75 db DNL or greater would be reduced by 61percent. Even greater reductions in noise exposure are expected at higher activity levels, such as the 37.5M High scenario. In this scenario, the Preferred Alternative would reduce the East Boston population exposed to 70 db DNL or higher by 56 percent. In Winthrop there would be a 42 percent reduction in the population exposed to 70 db DNL or higher.
14.10	Noise	55 dB DNL	WHO recommended that maximum outdoor noise levels should not exceed 55 dB.	The FAA as well as the Federal Interagency Committee on Aviation Noise (FICAN, a special government committee which includes among its members the U.S. EPA and HUD) recognize a DNL of 65 dB or above as indicative of significant noise impact, and the Preferred Alternative provides the opportunity to reduce noise exposure to the population exposed to the highest noise levels above DNLs of 75 dB and 70 dB. It is still the consensus of the scientific community in this country and much of the rest of the world that DNL remains the best descriptor of environmental noise, thus the Supplemental DEIS/FEIR and prior related documents incorporated DNL contours and population counts down to 60 dB, counts of people who experience different degrees of change in DNL, and DNL values as low as 20 to 25 dB caused by ground activity. In addition to DNL measures, the Supplemental DEIS/FEIR and prior related documents also included summaries of nighttime equivalent sound levels, changes in maximum sound levels, times above 5 threshold sound levels for nighttime hours and for 24-hour days, and equivalent sound levels as low as 20 to 25 dB caused by ground activity. Both Massport and the FAA believe it is most appropriate to reduce noise in the most heavily impacted areas first. Thus, the greatest noise benefit of Runway 14/32 is derived by reducing noise levels for those most heavily impacted (people within the DNL 70 dB and DNL 75 DB contours) and by shifting flights over Boston Harbor while reducing the total number of nighttime flights.
14.11	Health	Learning	The WHO report also found that noise has a detrimental impact on children's education. In noisy environments, infants and pre-school children suffer problems with cognitive development and school children learning to read do so more slowly. This was corroborated by a report by the National Resources Defense Council (NRDC) conducted with children in the vicinity of LaGuardia and JFK airports.	Massport, with the help of FAA funding, has undertaken an aggressive and extensive program to provide sound insulation treatments for all schools within the DNL 65 dB school day/school year contour (which covers a wider geographic area than the Airport's 65 dB DNL contour). Sound insulation provided through Massport's school sound insulation program is designed to restore the learning environment such that speech interference from aircraft overflights is no longer a concern. The Federal Interagency Committee on Aviation Noise (FICAN) is currently evaluating the effectiveness of school sound insulation on improving learning environments.

Code	Topic 1	Topic 2	Comment	Response
14.12	Ground Access	Increased Activity	The number of passenger motor vehicle trips through East Boston and other nearby communities will increase with expansion of passenger service at Logan Airport and expand land traffic impacts.	The Preferred Alternative will increase the efficiency of airside operations at Logan Airport during northwest wind conditions, but will not increase passenger levels or vehicle traffic. Refer to Section 3.5 of this Final EIS for a discussion of induced demand.
14.13	Ground Access	Increased Activity	The number of commercial motor vehicle trips to East Boston will increase in proportion to the number of freight aircraft trips to Logan Airport and expand land traffic impacts.	The Preferred Alternative will increase the efficiency of airside operations at Logan Airport. Aside from short-term construction related vehicles, implementation of the Preferred Alternative will not impact the number of commercial motor vehicles traveling on area roadways.
14.14	Environmental Justice	Impacts	Airport-related nuisances and adverse effects are disproportionately impacting East Boston, Winthrop, Chelsea, Somerville, Everett, Charlestown, South Boston and other nearby communities. The preponderance of Massachusetts's low income and minority populations is concentrated in and around Boston. Expansion of air pollution impacts from Logan Airport would disproportionately adversely impact low income and minority populations.	Adverse impacts are not predominately borne by low-income or minority populations. Based on Census 2000 population data, only 34 percent of the population in the 65 dB DNL and above contour for the Preferred Alternative is minority, compared to the baseline Suffolk County minority population of 48 percent. According to the 1990 Census, less than two percent of the population within the 65 dB DNL contour for the Preferred Alternative has a household income less than 150 percent of poverty level. (Income data from Census 2000 will not be released until June 2002 at the earliest.) Refer to Section 6.8 of the Supplemental DEIS/FIER and Section 3.6 of this Final EIS. The Massachusetts Department of Environmental Protection (DEP) has monitored EPA criteria air pollutants (e.g. CO, NO2, SO2, PM) in close proximity to Logan Airport for several years at the Bremen Street site. Notably, this monitoring data has not identified any violations of the Ambient Air Quality Standards over this timeframe. Although hazardous air pollutants (HAPS) are not included, these results are a good indicator of the conditions near the airport.
14.15	Health	Park Ridge, IL Study	Existing airport emissions data suggests that airport air pollution emissions are adversely impacting on the health of nearby communities. A Risk Assessment commissioned by the city of Park Ridge, Illinois published in August 2000 demonstrates that air pollutant emissions from O'Hare airport is significantly adversely impacting Chicago area communities. While data from Chicago is not directly applicable to Logan Airport, there is a very high likelihood that a comprehensive risk assessment of emissions from Logan Airport and other airports of similar capacity would also demonstrate excess cancer risk in nearby communities and an elevated Hazard Index at and beyond the airport boundary.	There are no conclusive data that show a causal relationship between airport operations and illnesses such as asthma, cancer and respiratory diseases. The Chicago O'Hare study, completed in August 2000 for the City of Park Ridge, Illinois, consisted of a short-term evaluation of toxic air pollutants up- and down-wind of the airport and a corresponding risk assessment to human health based on the monitoring results. The authors of this report admit that the data is very limited, the findings are preliminary and much more information needs to be collected before the relationship, if any, between airport emissions and human health can be reliably established. In any event, the data from a study of the Chicago O'Hare Airport can not be easily extrapolated to another airport. The Supplemental DEIS/FEIR presented a summary of the results of the Winthrop Health Study. The Massachusetts Department of Public Health, Bureau of Environmental Health Assessment (BEHA) reviewed the results of the Winthrop Health Study and concluded that the methodology used to conduct the study and interpret the results limits the validity of the conclusions drawn by the investigators. (Letter from Susan K. Condon, Director, Bureau of Environmental Health Assessment to William P. Frazier, Director, Department of Health, Town of Winthrop, dated January 5, 2000.) The Massachusetts Department of Public Health is conducting a study of the relationship between air pollution and public health, focusing on respiratory and cardiovascular effects for communities within a five-mile radius of Logan Airport. Massport has been cooperating with the Commonwealth of Massachusetts and the City of Boston on public health issues and will continue to facilitate monitoring of airport-related emissions by DEP and others, by assisting in monitoring site selection and providing agencies with air quality data, airport activity data, and meteorological data. Additional studies that will help advance the knowledge of this subject are currently underway under the direction of FAA, EPA and others.

Code	Topic 1	Topic 2	Comment	Response
				The Massachusetts Department of Environmental Protection (DEP) has monitored EPA criteria air pollutants (e.g. CO, NO2, SO2, PM) in close proximity to Logan Airport for several years at the Bremen Street site. Notably, this monitoring data has not identified any violations of the Ambient Air Quality Standards over this timeframe.
14.16	Health	Chelsea Creek	Massachusetts Institute of Technology, Department of Urban Studies and Planning, has prepared a report "Community Risk Assessment, Air Quality in Chelsea and East Boston" for the Chelsea Creek Action Group. The report is dated May 18, 2001. Although all air pollutant emitters (VOCs) could not be identified for calculating maximum cancer risk and hazard index, cancer risk in East Boston, Charlestown, South Boston, downtown Boston, Chelsea, and Winthrop exceeded 1x10-6 with the highest levels of cancer risk centered on Logan Airport. These data underscore the need for a comprehensive study incorporating all identifiable fixed and mobile pollutant emitters.	The assertions made by the commenter are inaccurate. The communities abutting Logan Airport have a lower level of cancer risk than residents of Boston in general. Refer to the 1999 Report to the Mayor, Health of Boston prepared by the Boston Public Health Commission.
14.17	Health	Health Study	Related to emissions from Logan Airport is a Winthrop Airport Hazards Committee survey. The data from this study demonstrate significantly elevated Relative Risks of asthma and allergy in the district of Winthrop closest to the airport (0.4 miles), 2.18 and 1.97 respectively. The was also an elevated relative risk of chronic sinusitis (1.41) that was strongly correlated (p=0.085) but not quite statistically significant. This study underscores the need for a comprehensive and scientifically rigorous evaluation of current and future impacts.	The Supplemental DEIS/FEIR presented a summary of the results of the Winthrop Health Study. The Massachusetts Department of Public Health is conducting a study of the relationship between air pollution and public health, focusing on respiratory and cardiovascular effects for communities within a five-mile radius of Logan Airport. Massport has been cooperating with the Commonwealth of Massachusetts and the City of Boston on public health issues and will continue to facilitate monitoring of airport-related emissions by DEP and others, by assisting in monitoring site selection and providing agencies with air quality data, airport activity data, and meteorological data. Additional studies that will help advance the knowledge of this subject are currently underway under the direction of FAA, EPA and others.
14.18	Environmental Justice	2000 Census data	Boston's minority population increased significantly from 1990 to 2000. This growth has not been addressed by the SDEIS/Final EIR. East Boston has seen a high growth of its minority population. Massachusetts minority groups experience higher rates of respiratory disease than the general population of Massachusetts. In the interest of environmental justice, they should not be subjected to a disproportionate share of airport air pollution impacts.	The 2000 Census data regarding minority populations was not available when the Supplemental DEIS/FEIR went to print in March 2001. The Environmental Justice analysis relative to minority populations has been updated in this Final EIS to reflect Year 2000 Census data on total population, race and ethnic origin at the block level, which was released by the U.S. Census Bureau on March 21, 2001. (The Census Bureau will not begin to release comparable data on income on a state by state basis until June 2002 at the earliest.) While the Census 2000 data show that the minority population of the communities around Logan has increased, particularly in East Boston, the percentage of the population within the 29M Low 65 dB DNL contour that is minority is the same for both the No Action and Preferred Alternative. Furthermore, approximately 34 percent of the Year 2000 population within the 29M Low 65 dB DNL contour for the Preferred Alternative is minority, compared to the total Year 2000 population for Boston, Chelsea, Revere and Winthrop, which is 48 percent minority. Therefore, the Preferred Alternative does not result in a disproportionate adverse impact on minority populations. Refer to Section 3.6 of this Final EIS for additional information. Moreover, the Preferred Alternative results in small air quality benefits compared to the No Action Alternative.

Code	Topic 1	Topic 2	Comment	Response
14.19	Environmental Justice	Users vs. Impacted Population	While Boston and nearby communities share the essential benefits from Logan Airport with other Massachusetts communities, communities in Southern New Hampshire and communities in Northern Rhode Island, they must bear almost all of the airport's adverse impacts.	The FAA and Massport have taken the lead in promoting the development of regional airports as an alternative to Logan Airport. In 1995, the FAA and Massport co-sponsored the New England Regional Airports Air Service Study, which estimated the number of passengers that bypassed regional airports in favor of Logan Airport and recommended strategies for increasing regional airport air service levels and their attractiveness. FAA is sponsoring the New England Regional Aviation System Plan. Since 1996, there has been tremendous growth at the regional airports. In fact, eight out of ten new air travelers in New England have chosen the regional airports over Logan Airport. The regional airports are expected to accommodate an increasing share of the overall growth in New England's air travel demand. This will provide some relief to Logan Airport. Nevertheless, the proposed Airside Project is necessary and provides clear benefits at recent traffic levels. These benefits will only increase in the future, even as developments at the regional airports act to reduce the rate of future growth at Logan Airport. Refer to Chapter 2 of the Supplemental DEIS/FEIR for a discussion of the role of regional airports, including capital improvements and traffic growth. Refer also to Section 3.1 of this Final EIS. Logan Airport is an essential component of the economic health of both the Metropolitan Boston area and the New England region. Today the airport generates $2.2 billion in direct impact and $4.3 billion in indirect impact or a total of $6.5 billion. It is a major employer in Boston, directly employing over 25,625 and 75,016 indirectly for a total of 100,641 people. Of those employed at Logan, the largest percentage (16 percent) live in the City of Boston, with most living in East Boston. About 46 percent of Logan Airport workers live in Boston and its suburbs within Route 128 including Revere, Winthrop, Lynn, Peabody, Malden, Saugus, Chelsea, Everett, and Salem (from Logan International Airport's Evolving Role in the New England Economy, Draft August 2001, prepared by Economic Development Research Group). In addition, residents living in Boston and these nearby communities benefit from convenient access to the national and international air transportation systems. These benefits must be considered along with the environmental impacts of Logan Airport. The impacts of overall airport operations are characterized in the Environmental Status and Planning Report (ESPR) and associated Environmental Data Reports (EDRs) that Massport files on an annual basis with the Secretary of Environmental Affairs.

Letter 15

Boston Redevelopment Authority

Boston's Planning & Economic Development Office

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JUN 6 2001

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RE: EOEA No. 10458 – Logan Airside Improvements Planning Project Supplemental Draft Environmental Impact Statement/Final Environmental Impact Report

Dear Secretary Durand and Mr. Silva:

Pursuant to regulations implementing the Massachusetts Environmental Policy Act (M.G.L., Chapter 30, Sections 62-62H) and the National Environmental Policy Act [42 USC §§4332(2)(c)], the Boston Redevelopment Authority (BRA) hereby submits the following comments regarding the Supplemental Draft Environmental Impact Statement (SDEIS)/Final Environmental Impact Report (FEIR)for the Boston-Logan International Airport Airside Improvements Planning Project.

The SDEIS/FEIR evaluates the potential environmental impacts associated with the proposed Logan Airside Improvements Planning Project, the stated purposes of which are to reduce current and projected future levels of aircraft delay and to improve the operational efficiency of Logan International Airport. The Preferred Alternative, selected by the Massachusetts Port Authority (Massport), the operators of Logan Airport, and the Federal Aviation Administration (FAA), consists of the following improvements:

- the construction of a new unidirectional Runway 14/32 along the southwestern edge of the airport,
- a new Centerfield Taxiway located between Runways 4L/22R and 4R/22L,
- a reconfiguration of the southwest corner taxiway system,
- an extension of the existing Taxiway Delta,

- a realignment of the existing Taxiway November, and

- a reduction of the approach minima for Runways 15R, 22L, 27, and 33L.

Not included in the Preferred Alternative is peak period pricing, a demand management tool designed to reduce delays that result when airlines schedule beyond airfield capacity limits for a sustained period. Although studied in the Draft EIS/EIR, this proposal was not recommended as a component of the Preferred Alternative since Massport/FAA did not consider overscheduling as a significant contribution to delays at Logan at present.

As was the Draft EIS/EIR, the SDEIS/FEIR is a very detailed and comprehensive document identifying the aircraft delay problem at Logan Airport and evaluating the environmental consequences, both positive and negative, of the Preferred Alternative to reduce this problem. Extensive and detailed information has been provided for review and to support the recommended course of action. Notwithstanding the supporting evaluations, however, we continue to have, along with the other agencies of the City of Boston, serious issues with much the analyses and conclusions and with the improvement program put forth by Massport and the FAA. Further, we continue to feel that the analyses presented are deficient in several respects and do not fully or adequately consider other feasible alternatives to address the delay problem at Logan with potentially lesser environmental impact on the residents of the neighboring communities.

Overview

According to the SDEIS/FEIR, if no action is taken to improve the operational efficiencies at Logan Airport, annual delays will grow from the current level of approximately 142,000 hours to as high as 363,000 hours under the 37.5M High Fleet scenario, now expected to be reached in 2015, and to 595,700 hours under the 45M High Fleet scenario. With implementation of the Preferred Alternative, future Logan operating delays are projected to be reduced by 27% for the 29M Low Fleet scenario to 37% for the 45M High Fleet scenario (while virtually eliminating delays during northwest wind conditions). Under the 37.5M High Regional Jet Fleet scenario, annual delays would be reduced by 29%. However, as we note later in these comments, the implementation of peak period pricing, a management concept considered by Massport in its alternatives analysis but ultimately rejected, would appear to result in much greater reductions in runway delays. 15.1

Although delays admittedly are a problem at Logan (as they are at every major airport, both in this country and abroad), statistics have shown that delays have been decreasing in recent years. In fact, the FAA has reported that 1998 delays at Logan were 18% lower than 1993 levels. (While year 2000 delay hours are not reported in the SDEIS/FEIR, it is noted that Logan's airside delay rank among U.S. airports remained the same as in 1998.) These reductions in delays at Logan have been occurring without the 15.2

implementation of any airside improvements as proposed, including a new runway.[1] Even with the construction of the runway and the other proposed improvements, Massport admits that this would be only a short-term solution and that in the long term the problem of delay at Logan would not be resolved. Logan needs a long-term solution, one that only a comprehensive regional transportation strategy can address adequately. 15.3 15.4

Moreover, the extent of the delay problem due to the lack of runways may be overstated. According to the SDEIS/FEIR delay analysis, when northwest winds are especially strong or gusty, only Runway 33L can be used for both landings and takeoffs, resulting in a one-runway configuration. Logan's operational throughput, therefore, is reduced to 60 or fewer operations per hour, which causes the delay problem. However, the SDEIS/FEIR also notes that this condition occurs only approximately 10 days per year. For the remainder of the year, at least two runways are available. For 80 percent of the year, Logan operates on three active runways and can achieve its full capacity of 120 operations per hour. 15.5

In spite of the assertions of the SDEIS/FEIR that implementation of the Preferred Alternative would result in significant environmental benefits to the communities surrounding Logan, by maximizing use of over-water routings and reducing noise and air quality impacts, the data indicate otherwise for several close-in neighborhoods of Boston. With the Preferred Alternative, total annual jet operations over a number of neighborhoods – South Boston (D Street area), the South End, Roxbury, Jamaica Plain, and Eagle Hill (East Boston) – would increase dramatically (by up to 460%) over the No Build alternative. As shown in Figures 6.2-5 through 6.2-8, the Preferred Alternative would increase both the 60dBA and the 65dBA contours in both South Boston and East Boston, especially under the 37.5M High Fleet scenario. Under this scenario, South Boston is projected to experience a 5dB DNL increase in noise levels (due to greatly increased departures from Runway 27), and East Boston is projected to experience a 4dB DNL increase. Although flights would be reduced over portions of East Boston north of the airport and in parts of South Boston and Dorchester to the south, the percentages of these reductions would be far less than the increases.

However, the major concern of the BRA, as the planning and development agency of the City of Boston, with respect to the Preferred Alternative is its potential detrimental effect on planned development of the South Boston waterfront/piers area. With the construction of Runway 14/32, the SDEIS/FEIR predicts that the 65dB DNL noise contour would extend well into the waterfront/piers area, which is slated for significant development, including hotels and residences, over the next decade. As you are aware, these proposals, which currently are undergoing MEPA review, include the approximately $1.2 billion mixed-use (office /hotel/residential/retail) development on the 15.6

[1]Actually, the fact that regional airports such as Manchester in New Hampshire and T.F. Green near Providence have absorbed the majority of new passenger growth in the Boston region in recent years has helped to minimize passenger growth at Logan and consequently may have reduced the increase in delays at the airport.

Fan Pier, $400 million hotel/office complex with 200 residences on Pier 4, and the approximately $1 billion Fan Pier Gateway project on Northern Avenue, to include, inter alia, hotel space and approximately 380 residential units. While Runway 14/32 would not directly affect these developments, use of this new runway by smaller planes would free up Runway 27, which is aligned toward the South Boston waterfront, for much heavier use by large aircraft for takeoffs. The SDEIS/FEIR indicates that the new runway would permit a three-fold increase of annual jet departures from Runway 27 by 2015, compared to the number in 1999, which could seriously disrupt the plans for the new development in the waterfront area. The increased noise (over the No Build alternative) would seriously affect the livability of the South Boston waterfront and undermine the appeal of housing there, thus threatening the success of any waterfront development. 15.7

Considering the high potential that the proposed airside improvements program could result in substantial adverse impacts not only on existing Boston neighborhoods surrounding the airport but also on the feasibility of the proposed development of the South Boston waterfront, we continue to support first and foremost the pursuit of an effective regional transportation approach to resolving the current problems at Logan. We believe that Massport and the FAA cannot look exclusively to physical improvements at the airport to address and possibly solve the present and projected future flight delay problems. 15.8

We do recognize that both Massport and the FAA recently have taken a number of positive steps to promote regional transportation planning and to further the use of regional airports as an alternative to Logan. The present success of both Manchester Airport in New Hampshire and T. F. Green Airport near Providence in capturing a major proportion of new passenger growth in the Boston region as indicative of this support (between 1996 and 1999, regional airports accommodated 73% of the region's passenger growth), and under Massport's leadership Worcester Regional Airport likewise is expected in the future to play an important role in attracting passengers who otherwise would use Logan. Further, we are pleased that Massport, along with the FAA and the regional airport directors, have agreed to undertake a New England Airport System Study to identify the opportunities for enhancing the regional airport system and to recommend an implementation plan/program to support a regional strategy, and that the New England Governor's Conference also has recognized the need to further the regional transportation system through a number of supporting actions. We look forward to productive results from these efforts.

We also note that the FAA, cognizant of the delay problem not only at Logan but also at airports throughout the country, recently has modified its approach to air traffic control by opening up more low-altitude routes to major carriers, allowing air traffic controllers to reroute airlines whose scheduled routes would encounter inclement weather (by allowing use of airspace heretofore restricted to Canadian flights and military aircraft), and improving communication between the controllers and the airlines. As a result of 15.9

these new procedures, delays in April reportedly were reduced 15 percent from the same period last year. The success of such a redesigned FAA procedure clearly is indicative of the feasibility of exploring alternative approaches to reducing delays at Logan and eliminate the need to construct a costly new runway of limited benefit.

Furthermore, we believe that a number of other, non-physical, strategies should be examined by Massport to reduce the delay problem at Logan before embarking on the improvement proposed in the Preferred Alternative, especially a new Runway 14/32. Other, more proactive airports are attempting to reduce delay by limiting the number of flights, cooperatively reworking schedules with the airlines, mandating the use of larger airplanes, and shifting flights to regional airports. Although Massport cannot, under current Federal law, issue operational caps on any airline or require the use of a particular aircraft, Massport can take the lead in discussing capacity issues at Logan with the airlines. 15.10

At both LaGuardia Airport in New York and at San Francisco International Airport, for example, the airport operators and the FAA have worked cooperatively with the airlines themselves to limit flights by a lottery system or by fleet alteration (using larger aircraft instead of small planes to reduce the overall number of flights). At Logan, based on a Massport analysis of May 1999 airline schedules, nearly half (41.7%) of Logan's scheduled arrivals and departures were on regional aircraft with fewer than 50 seats. While Logan ranked 7th among U.S. airports in terms of total aircraft operations, it ranked 5th in terms of scheduled arrivals and departures on aircraft of fewer than 50 seats. This heavy concentration of small-capacity planes is a major contributor to Logan's delay problem. Along with the use of larger planes, a consolidation of flights and an increase in load factors also needs to be pursued with the airlines. Massport, therefore, must create, in cooperation with its airline tenants, an ongoing policy to effectuate much more efficient airline operations at Logan as a more acceptable and feasible remedy to its delay problem. As noted previously, while construction of Runway 14/32 may help during strong northwest wind conditions, Massport needs other options to reduce delays under <u>all</u> conditions.

In addition, Massport must promote a greater transfer of general aviation and cargo operations to the regional airports (especially Worcester, which would be much closer to the Route 495 industries than Logan) before determining that a new runway is absolutely necessary. Such transfers would reduce the number of operations at Logan and thus the potential for delays. Both Pease International and the New Bedford Regional Airport also would be excellent candidates to absorb some of the cargo operations now at Logan. In fact, Massport did report on the development of a major cargo facility at New Bedford in its <u>1999 Annual Update</u> but no further information has been reported in subsequent annual environmental updates. Massport needs to put a high priority on the completion of this facility, as well as explore the potential for cargo operations at Pease and Worcester. Further, Massport needs to promote measures to restrict the use of Logan by general aviation and business jets and to encourage the 15.11

transfer of these flights to more local airports such as Hanscom, allowing Logan to operate efficiently as a major commercial and international airport.

Runway 14/32

The construction of a new 5,000-foot runway (Runway 14/32) along the southwestern edge of the airport is the principal, and most controversial, proposal of the Logan Airside Improvements Planning Project. According to the SDEIS/FEIR, Runway 14/32 would be designed as an unidirectional runway, with all arrivals over Boston Harbor to the Runway 32 approach and all departures from the Runway 14 end out over the Harbor. This new runway is proposed to address the principal cause of delay at Logan – the substantial drop in airport capacity that occurs when moderate to strong northwest winds force the airport to operate with fewer than three runways – by providing a second runway in the northwest/southeast orientation.

As you are aware, the City of Boston has consistently opposed this runway, and continues to do so. It is not a new proposal. It originally was proposed in the early 1970s and construction actually began in 1974, but was halted as a result of an injunction successfully obtained by the City and East Boston residents. This injunction remains in effect. While we recognize that construction of Runway 14/32 could, to some extent, reduce delays at Logan, we believe that the impacts of this proposal on the residents of Boston and adjacent communities could far outweigh its potential benefits. In fact, the benefits would not be substantial; by Massport's own analysis future projected delay would be reduced by only approximately 20 percent. Any more significant delay reductions would be short-term - approximately five years – and would become less and less important as the projected growth in aircraft operations occurs in future years. 15.12

The benefits of Runway 14/32 clearly are questionable at best. Review of Table 4.5-1 in Appendix C, for example, reveals some telling statistics. For the 2010 37.5M High Fleet and the 2010 45M High Fleet scenarios, implementation of the Preferred Alternative actually would result in a substantially larger number of total delay hours than implementation of an alternative that includes all proposed actions (including peak period pricing) except Runway 14/32. For the same fleet scenarios, the Preferred Alternative also results in much more delay than the No-Build alternative (peak period pricing and reduced landing minima only). And for these fleet scenarios plus the 2010 37.5M Low Fleet and the 37.5 High Regional Jet Fleet, the Preferred Alternative again would result in more hours of delay than an all-action alternative (which clearly demonstrates the added benefits of including peak period pricing as a management strategy, a concept rejected by Massport). 15.13

In our opinion, the SDEIS/FEIR does not adequately address either the potential noise impacts (particularly ground roll takeoff noise) or odor impacts on the Jeffries Point neighborhood of East Boston with the construction and use of the proposed Runway 15.14

14/32. Since jets would be taking off in a southeast direction, with the wind, the full extent of takeoff noise would be felt by Jeffries Point. If these winds were strong or weather conditions were bad, the noise impacts would be even more noticeable. Further, these impacts most likely would not be identified in the INM modeling, since Massport acknowledges that the INM only addresses average conditions and makes no provision for accommodating bad weather days, strong winds, temperature increases, and similar non-standard conditions. Moreover, the noise impacts would be further exacerbated by propagation from the water surface of Jeffries Point Cove. This potential underestimation of noise impacts on the Jeffries Point neighborhood is clearly shown by the noise contour figures. Therefore, we seriously question the results of the noise analysis and its conclusion that these would be no impact on Jeffries Point with the use of Runway 14/32.

In addition, the SDEIS/FEIR does not address the potential for odor impacts on the Jeffries Point neighborhood. Odor impacts from airport operations are a frequent complaint of residents who live in the vicinity of the airport. Under certain climatic and wind conditions, aircraft-related odors would be expected to have an adverse effect on the residents of Jeffries Point. This would be particularly true during morning hours, which are the worst time for atmospheric inversions and would make unpleasant odors particularly noticeable. A detailed study and evaluation of potential odor effects, therefore, needs to be undertaken.

According to Massport and the FAA, Runway 14/32 is to be unidirectional only, with departures heading southeast over Boston Harbor and landings on the Runway 32 end arriving from the southeast over the harbor. However there is no guarantee that a commitment to a unidirectional limitation would be maintained in the future. Current agreements to this effect can be changed (cf. Massport's and the FAA's present proposal to cancel the 1980 agreement not to reduce the landing minimum on runway 15R), and physical restrictions (such as the current lack of a taxiway to accommodate takeoffs from the Runway 32 end) can be addressed through new construction. Further, although the SDEIS/FEIR states that the presence of the Hyatt Conference Center would prohibit arrivals on Runway 14, there is no similar statement in this document regarding takeoffs from the Runway 32 end. 15.15

Due to its restricted length (5,000 feet), the predicted use of Runway 14/32 may not be as high as projected by Massport. (Obviously, this runway would be far too short for use by the large commercial jets.) According to the study which forecast regional jet utilization of the proposed Runway 14/32, prepared for the FAA and included as Appendix C of the SDEIS/FEIR, of the regional jets expected to operate at Logan in significant numbers, the 5,000-foot length would not be sufficient for Canadair CRJ-200 jets. Under wet runway conditions, the runway also would not be expected to be used by Embraer 145 and Fairchild 328 jets. Although the balance of the regional jet fleet would be capable of landing on Runway 32, experience at other airports indicates that regional jet operators generally request runway lengths greater than 5,000 feet to 15.16 15.17

provide an added margin of safety, leading to non-use or a low-volume use of similar runways at other airports. At the New Haven Airport, for example, according to the December 4, 2000, minutes of the SDEIS Panel, regional jets are requiring a 7,000-foot runway, and similar requests have been made for Cleveland Hopkins International Airport and others. According to the above-cited FAA study, planning studies for airports contemplating new runways indicated the need for runway lengths of 6,000-7,000 feet to accommodate regional jet service.

Even at airports which have a 5,000-foot commuter runway, use is minimal. At Baltimore-Washington International, where a 5,000-foot runway has been available since the late 1980s, an ongoing capacity study indicated no significant landing activity on this runway by regional jets (FAA study). And at Philadelphia International Airport, a relatively new 5,000-foot runway (which also is unidirectional as proposed at Logan) has only very minimal use by all commuter jets, not just CRJ's. The FAA reports that only a dozen airplanes a day, less than 1% of the airport's total of 1,300 plus arrivals and departures, are currently using the runway, and they do not expect any appreciable increase in use in the future even with improvements to permit use of the runway in poor weather conditions. Airport officials had expected a 30% reduction in delays at the airport with the construction of the runway; in fact, they have experienced only an 8% to 12% decrease in delay. 15.18

The result of these studies, therefore, would indicate that the expectation of Massport of a significant reduction in delay at Logan as a result of the construction of a new Runway 14/32 may be highly optimistic.

Centerfield Taxiway

The proposed Centerfield Taxiway is a new 9,300-foot taxiway which would be located between parallel Runways 4L/22R and 4R/22L. The purpose of this taxiway, according to the SDEIS/FEIR, is to provide alternative taxi routings for more efficient movement of aircraft between runways and terminal areas, thus reducing ground delays for both arriving and departing aircraft. By diminishing delays, the SDEIS/FEIR projects that both ground noise and air quality impacts associated with ground operations also would be reduced.

Along with the City of Boston, the BRA continues to oppose the construction of this taxiway. In our DEIS/DEIR comment letter, we raised both safety and environmental issues regarding this proposal. We do not feel that the SDEIS/FEIR has sufficiently addressed these concerns.

With regard to the safety issues, the proposed Centerfield Taxiway would be located between two of the most heavily-utilized runways at Logan.[2] In spite of assurances that runway markings, air traffic control procedures, and electronics approach guidance during poor visibility would make mistaking the taxiway for a runway "highly improbable," errors can occur (the recent landing of an aircraft on a wrong runway at Logan was noted previously), especially if a pilot is not familiar with the airport. The implementation of the Centerfield Taxiway proposal, therefore, could led to a potentially dangerous situation at the airport. 15.19

With respect to environmental issues, the construction of the Centerfield Taxiway would provide, as noted alone, an alternative, and additional, route to Taxiway November to approach Runways 22L and 22R. Since both the Centerfield Taxiway and Taxiway November could be used at the same time, the number of aircraft approaching the runway ends, and particularly on hold positions, could more than double current usage, thus increasing, rather than decreasing, noise, odor, and air quality impacts on the Bayswater neighborhood of East Boston, which is located opposite the proposed alignment of this new taxiway. We believe that this potential adverse impact needs to be evaluated further. 15.20

Reduction of noise and air quality impacts is given as a justification for the construction of this new taxiway. In their comments on the DEIS/DEIR, the Massachusetts Department of Environmental Protection (DEP) had recommended a more widespread use of single engine taxiing to reduce emissions from taxiing operations. As a possible alternative to a new Centerfield Taxiway, therefore, we similarly would recommend that Massport seriously consider requiring single engine taxiing at Logan, including on Runway November. As noted in the DEP comments, such a strategy not only can reduce emissions but also can provide substantial cost savings to the airlines. We also note that Delta Airlines, as part of its environmental policy with respect to the Terminal A Replacement project (EOEA #12096), has stated its intention to operate single engine and idle power taxiing on taxiways and terminal aprons when conditions allow, thereby conserving fuel, reducing air pollutant and odor emissions, and lowering noise exposure. This strategy obviously is one that is acceptable to airlines and therefore should be pursued. 15.21

Taxiway Improvements

A number of taxiway improvements also are proposed to improve taxiway movements, in order to reduce taxiway congestion, enhance airfield safety, and facilitate operating efficiencies, especially at night or during reduced visibility. These improvements include:

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[2]In 1999, arrivals on Runways 4L/R increased (over 1997 DEIS/DEIR levels) to 40% and on Runway 22L to 10%; departures on Runway 4R remained at 8% and on Runways 22L/R dropped slightly to 34%. However, in all cases, the percentages of arrivals and departures exceeded, in some cases significantly, the PRAS goals for these runways.

1. The reconfiguring of the Southwest Corner Taxiway System to streamline taxiway flow in a very complex area for ground operations and to improve access by isolating lines of traffic flow from each other;

2. The extension of Taxiway Delta to Runway 4R/22L by constructing an additional 2,000 feet of taxiway between Runway 33L and Runway 4R; and

3. The realignment of Taxiway November between Runway 15L/33R and Runway 33L/15R to eliminate an existing complex intersection with Taxiway Tango and simplify the crossing of Taxiways Alpha and Kilo.

Since these improvements are designed to enhance airfield safety by eliminating confusing or problematic alignments and intersections we support their implementation at this time.

Reduction in Approach Minima

This proposed operational improvement would reduce the approach minima of Runways 22L and 27 to ILS Category I values and on Runways 15R and 33L to Category II values, consistent with current industry standards at other major airports, to allow for greater use of these runways under certain unfavorable weather conditions. Reducing the minima would lower the decision height at which a pilot must make a decision to land or to execute a missed approach procedure at times when visibility is low. For Runways 22L and 27, the proposed decision height would be lowered from the existing 420 feet and 460 feet respectively to 217 feet; for runway 15R, from 268 feet to only 18 feet; and for Runway 33L, from the existing 217 feet to only 17 feet.

As we noted in our comments on the DEIS/DEIR, we have no objection to the proposal to lower the minimum on Runway 33L. In fact, the City of Boston originally proposed that Massport work with the FAA to consider installing a Category II or Category III landing system on Runway 33L, in order to offer some relief to residents of South Boston and Dorchester from excessive noise impacts during inclement weather. It also would increase the margin of safety for these neighborhoods by encouraging a transfer of some flights to an over-the-water approach.

For the other proposed reductions, however, we continue to have serious concerns and therefore, along with the City of Boston, we are opposed to the reduction in landing minima, especially in light of the minimal benefits achieved. With respect to the approach benefits, we do note an apparent discrepancy in the SDEIS/FEIR analysis. Although the text on page 3-36 claims that reduced minima alone would provide an annual delay reduction of approximately 6,000 hours, the data in Table 3.4-1 would seem to indicate an additional runway availability of only 392 hours. 15.22 15.23

As expressed in our DEIS/DEIR comment letter, our concerns relate to both safety considerations and potentially increased noise impacts. Except for Runway 33L, the approach flight paths of these runways pass over heavily populated residential neighborhoods (Eagle Hill and Day Square in East Boston for Runway 15R, Orient Heights for Runway 22L, and the Port Shirley neighborhood of Winthrop for Runway 27). Although the FAA argues that the reduced minima would be consistent with the standard in effect at most other airports, these airports generally are located in more rural areas at a distance from city centers and do not have dense populations under their flight paths. Since the lowered minima would be in effect during poor weather conditions and reduced visibility, times when a pilot's work load on landing is especially challenging, our concerns continue to be with the safety of residents who live in close proximity to the touchdown points on these runways.

We also are not convinced that lowering the landing minima would result in significant noise benefits for the residents living under the approach paths to the subject runways. 15.24
Although the decision point wold be located closer to the airport than at present, we question whether the noise impact analysis has been based on actual operational characteristics rather than simple INM modeling, i.e., whether the analysis has taken into account the much greater level of thrust that would be required to execute a missed approach procedure at the lowered decision point than at the current points. Moreover, the lower cloud cover that often is present during poor whether conditions would tend to amplify noise levels from aircraft events, which also generally would last longer than on a clear day. As a result, adverse noise impacts on residents near the landing zones more likely would be exacerbated rather than reduced.

Moreover, we note the long-standing existence of an Agreement between the City of Boston and the FAA and Massport prohibiting a reduction of the landing minimum for Runway 15R due to the concern of the City regarding the significant environmental impact of increased noise annoyance for residents under the aircraft approach path to Runway 15R, particularly in periods of poor weather and at nights. Although the Agreement does require the preparation of a full environmental impact statement should the FAA wish to pursue a lower landing minimum on runway 15R, as it is now doing, we believe that the conditions that resulted in the Agreement in the first place are just as valid today and therefore lowering the landing minimum at this time would not be advisable.

Given the concerns as noted above, we therefore would urge the FAA not to approve the proposed reduction in landing minima on runways 22L, 27, and 15R. Further, we do not believe that the SDEIS/FEIR has adequately addressed the safety issues or the potential significant noise impacts on residents living within and under the flight paths to the runways proposed for lower landing minima.

Peak Period Pricing

Among the improvement concepts considered, but dismissed, by Massport to alleviate the delay problem at Logan was the implementation of peak period pricing, which would be designed to eliminate flights during periods when demand exceeds the airfield's capacity for a sustained period of time. We are disappointed that Massport continues to reject this concert as a feasible strategy to reduce the delay problem in spite of its overwhelming support and Massport's own admission that peak period pricing could provide effective and meaningful delay benefits. Massport's rejection is based on their conclusion that airline overscheduling is not currently a significant cause of delay at Logan.[3] Nonetheless, as the BRA pointed out in its comments on the DEIS/DEIR, peak period pricing can have substantial benefits in mitigating aircraft delay and has been recommended for Logan by the U.S. Environmental Protection Agency, among others. Under the 37.5M High Fleet condition, for example, Massport forecasts that peak period pricing (along with reduced minima) could result in an estimated 41.7% reduction in runway delays as compared with taking no actions. (With an exemption program for eligible small communities, delay reduction would be reduced slightly to 37.2%, still a sizeable decrease). As another example, Table 4.5-1 in Appendix C clearly shows that, when compared to the No-Build alternative (management actions only), the Preferred Alternative of Massport and the FAA actually results in substantially higher total hours of delay for the 2010 37.5M High Fleet and the 2010 45M High Fleet scenarios, again illustrating the significant benefits of adopting peak period pricing.

Therefore, we again would strongly recommend that Massport institute a program of peak period pricing at Logan to determine its efficacy in substantially reducing delays before proceeding with the costly and controversial runway and taxiway construction proposals and the reduction in landing minima, all of which we feel require further study. 15.25

Environmental Justice

We believe that there is a serious deficiency with the environmental justice analysis of the SDEIS/FEIR. The main problem is that the analysis is based on outdated, 1990, Census data rather than the currently-available 2000 data. Census data for 2000, for example, show a dramatic increase in minority population in East Boston, from 24% of the population in 1990 to 50% in 2000. In actual numbers, the number of minorities (principally Hispanics from Latin America) grew nearly 2½ times. Although income data are not yet available, since the minority increase is primarily immigrants, they can be expected to be largely low-income persons. 15.26

[3] However, Massport has stated its intention to establish a schedule monitoring system to predict a further possibility that overscheduling could become a serious contributor to delays at Logan, which could trigger the implementation of peak period pricing if necessary. In fact, as shown on Figure 1.3-2 of the SDEIS/FEIR, under the 37.5M High Fleet forecast scenario, overscheduling clearly will be a problem and, as acknowledged by Massport, can be expected to cause serious delay problems.

Minority populations also increased substantially in South Boston, a neighborhood which would be directly affected by the additional flights off of Runway 27. In this neighborhood, minorities increased from 5% of the population in 1990 to 15% in 2000, and in terms of actual numbers grew by nearly 245%.

With the use of the outdated 1990 Census data in its evaluation, the SDEIS/FEIR, has, in our opinion, greatly underestimated the impact of the proposed Airside Improvements Planning Project on minority and low-income populations in the most directly affected Boston neighborhoods. According to the SDEIS/FEIR, overflights from Runway 27 departures that affect parts of South Boston, the South End, and Roxbury (which, at 95%, has one of the highest percentages of minority populations of any Boston neighborhood) will more than double with implementation of the Preferred Alternative, increasing from 20,356 in 1998 to 41,974 when Logan Airport reaches 37.5 million passengers, making this the fourth most used procedure, up from fifth in 1998. Airflights affecting the Eagle Hill section of East Boston (Runway 33 departures and Runway 15 arrivals) are projected to increase over 3½ times during the same period, from 9,804 to 35,801, becoming the fifth most used procedure, up from sixth, or least used procedure, in 1998. This substantial increase in flights over these neighborhoods will result in increased pollutant emissions, aircraft noise, and odor impacts, affecting not only the livability and well-being of these neighborhoods but also producing much greater risks to the general health of these populations. Therefore, the environmental justice consequences of the proposed Improvements Program needs to be reexamined using the current Census data for a more accurate and realistic determination of the impact of the Preferred Alternative on the existing minority, low-income, and disadvantaged populations.

Furthermore, we note that the future noise contours shown in the SDEIS/FEIR appear to be based on the optimal use of the PRAS (never actually achieved in the past) rather than on the more realistic actual runway usage. In several instance, past records have indicated considerable discrepancy between the PRAS goals and runway utilization (v. Table 6.2-4 for 1998 experience). Therefore, the impact of aircraft noise on criterion populations, especially minority and low-income populations living near the airport, may be greatly underestimated. 15.27

Health Effects

We also do not feel that the health effects of the proposed Improvements Program have been adequately addressed in the SDEIS/FEIR, nor that the discussion in Section 6.8.6.4 complies with the requirements of Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations), the Department of Transportation order on Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, and the Council of Environmental Quality's Environmental Justice Guidance under NEPA. Each of these orders requires the FAA to examine, inter alia, cumulative public health and environmental hazards

effects of proposed actions. Neither the FAA nor Massport have conducted any comprehensive or independent study of the potential health effects of the proposed Preferred Alternative. Rather, these agencies merely rely on existing available studies for the analysis and conclusion that there is no apparent casual relationship between health issues and proximity to the airport. It should be noted that the City of Boston health studies relied upon generally are only assessments of public health conditions and problems and have not been prepared to determine whether there is any casual relationship with Logan. 15.28

According to the EOEA, Logan Airport currently is the largest single source of NO_x pollution in Suffolk County and the 6th largest in the Commonwealth; and it is expected to become the largest NO_x emitter by 2010 as a result of increased activity at the airport. Jets are by far the worst of the polluters, a condition which will get much worse in the future [according to the 1999 Environmental Status and Planning Report for Logan Airport, (Massport, December 2000) [NO_x emissions from aircraft at Logan are projected to increase by 33% by 2015]. NO_x pollution causes smog, which exacerbates respiratory diseases, including asthma. With the projected substantial increase in flights over the densely-populated neighborhoods of South Boston and East Boston as a result of implementing the proposed Improvements Program, NO_x emissions (as well as emissions of other toxic pollutants produced by aircraft operations) also will increase, adversely affecting the health of these residents. The SDEIS/FEIR, however, fails to address this impact appropriately or to provide any substantive analysis.

Limited studies that have been done have indicated a potentially strong relationship between adverse health effects and airport proximity. A 1999 study by the Winthrop Environmental Health Facts Subcommittee, for example, concluded that residents living in Winthrop neighborhoods bordering Logan Airport showed a significantly higher incidence of respiratory and cardiovascular diseases, including lung cancer, asthma, chronic obstructive pulmonary disease, and allergic rhinitis, than those who lived further away (a direct casual relationship with the existence of the airport, however, could not be definitely established). Another study, undertaken in Park Ridge, Illinois, and published in August, 2000, showed a definite increase in cancer risk for residents living near O'Hare International Airport and demonstrated that air pollutant emissions from the airport were having a significant adverse impact on Chicago area communities. More recently, concern has been raised about a growing incidence of schleroderma, an auto-immune skin disease, among South Boston residents and its possible connection with aircraft activity from Logan. A study of this problem currently is underway by the Department of Public Health.

Health problems resulting from noise exposure likewise have not been adequately addressed in the SDEIS/FEIR. A 1993 World Health Organization report on noise exposure and effects found that noise pollution gives rise to a large number of health problems, including hearing impairment and loss, sleep disturbances, adverse cardiovascular effects, mental disorders, and a detrimental impact on children's learning 15.29

abilities. The SDEIS/FEIR merely dismisses any discussion with a statement that a review of available information did not identify hearing loss as a public health concern, this in spite of cited evidence to the contrary.

The City of Boston Office of Environmental Health is providing extensive comments and recommendations for needed studies to address adequately the issue of airport-related health effects. We concur with these comments and recommendations and urge you to give them the serious consideration that they warrant.

Water Quality

We have a concern that the proposed redirection of stormwater discharge in the southwest corner of the airfield (the proposed location of Runway 14/32) from the West Outfall, which is equipped with a pollution control facility, to the perimeter outfalls may result in a degradation in the water quality of the adjacent Boston Harbor, particularly from the discharge of deicing fluids when used on the new runway (if ultimately constructed). Although Massport does plan to install a low-flow water quality treatment structure to collect first-flush runoff, this may not be sufficient to control adequately potential pollutant discharges. In fact, the SDEIS/FEIR admits (page 6-135) that pollutant loading to the harbor may be increased slightly as a result of deicing Runway 14/32, notwithstanding the low-flow treatment device. Assurances need to be provided that the water quality of Boston Harbor will not be adversely affected by the proposed reconfiguration of the airfield drainage pattern and the addition of a new source of pollution. At the same time, we are cognizant of the suspicions that deicing fluids which have seeped into the ground most likely are the source of odor problems within the Ted Williams Tunnel. The first-flush treatment system must assure that this problem will not be further exacerbated. 15.30

Data

We note that the SDEIS/FEIR is based on 1998 data rather than the more recent, and available, 1999 data (v. the 1999 Environmental Studies and Planning Report (ESPR) for Logan Airport, EOEA #3247). In fact, the SDEIS/FEIR not only references the 1999 ESPR in several sections of the document but even includes in some cases year 2000 data (e.g., Table 1.3-1). In addition, the air quality evaluation is based on even more outdated 1997 data, even though 1999 data existed and was used in the 1999 ESPR. Notwithstanding the assertion of Massport that there is little difference between 1998 and 1999 data, we believe that the more recent data should have been used for the analysis, especially to provide consistency throughout the document. 15.31

Noise Mitigation

Implementation of the Preferred Alternative will result in an increase in populations that will be included within the 65dB DNL contour, who thus will be eligible for sound

insulation of their houses. The SDEIS/FEIR states (page 8-3) that as part of the project-specific mitigation program sound insulation would be provided to all residences newly included within the Preferred Alternative 65dB DNL contour "for the 29M Low Fleet scenario." There is no mention whether such funding would be made available for any other scenario, including the 37.5M High Fleet scenario (which results in a 994% increase in exposure in the Eagle Hill neighborhood of East Boston!) and the High Regional Jet Fleet alternative. In addition, the statement regarding the proposed sound insulation program on page 8-3 is qualified: "To the extent that federal funding is provided....", leading one to seriously question whether Massport would proceed with sound insulation if federal funding were not made available. At the present time, there is no guarantee that adequate funds would be made available for additional sound insulation. Under the present Bush administration, additional funding for environmental protection is questionable. A clarification regarding Massport's commitment to extending the sound insulation program to the newly included eligible residences, regardless of the availability of additional federal funding, is necessary, along with a timetable for implementation. 15.32 15.33

Technical Comments

- Although the SDEIS/FEIR evaluated an additional long-term passenger scenario - the 37.5 M High Regional Jet (RJ) Fleet – many of the tables documenting the impacts of the several scenarios do not include the new scenario, being limited to the scenarios evaluated in the DEIS/DEIR. Rather, much of the data for the 37.5 M High RJ Fleet have been relegated to the Appendix volume, making a ready comparison of the alternative scenarios rather difficult. All comparative data for the various scenarios evaluated should have been included in the main document. 15.34

- In Figure 4.3-3, the chart for Arrive 4 is incorrect (v. the Arrive 4 chart in Figure 4.3-6). It actually is the same as the Depart 4 chart in Figure 4.3-4. 15.35

- Figure 4.7-5 does not indicate wind direction, as claimed. 15.36

- In Section 5.2.2.2 (page 5-12), no mention is made of the FAA-approved adjustment to the noise model to account for the effect of elevated terrain ("hill effect") on sound propagation from the airport (v. 1999 ESPR, page 6-16). Massport should clarify whether this adjustment, which expanded the 65dB DNL contour in the Orient Heights area of East Boston, also was included in the noise modeling for the Airside Improvements Planning Project. 15.37

- On page 6-87 (C Street area, Boston/South Boston), it should be noted that the four individual buildings referenced as meeting National Register eligibility criteria have been demolished to permit the construction of the Boston Convention and Exhibition Center.

In conclusion, we have provided extensive comments on the proposed Logan Airside Improvements Planning Project. As described and evaluated in the SDEIS/FEIR, we continue to have serious concerns with the Preferred Alternative selected by Massport and the FAA and feel that all the issues of this significant proposal still have not been adequately addressed. In our opinion, implementation of this program could result in substantial environmental impacts on sections of East Boston, South Boston, the South End, Roxbury, and other Boston neighborhoods and could seriously hinder the feasibility of proposed developments in the South Boston waterfront. Along with the City of Boston, we remain opposed at this time to the construction of a new runway and a new Centerfield Taxiway and to the reduction in landing minima on Runways 22L, 27, and 15R.

Sincerely,

Mark Maloney
Director

cc: Betty J. Desrosiers
Director, Aviation Planning and Development
Massachusetts Port Authority

MERTENS/EOEA-10458.doc

EXHIBIT A

Addressing Community Health Concerns Around SeaTac Airport

Response to the question, "Is it possible to monitor jet engine exhaust emissions or to model their path using data on prevailing winds and takeoff patterns?"

March 2000

Prepared by

Washington State Department of Health
Washington State Department of Ecology
Puget Sound Clean Air Agency

In consultation with

Public Health – Seattle & King County
SeaTac Airport Area Community Representatives
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Additional copies of this report are available at:
http://www.doh.wa.gov/EHSPHL/Epidemiology/NICE/default.htm

compounds also originate from other sources including cars, trucks, wood stoves, and industry.

The group also noted that:

- Winds are predominantly northerly or southerly, and airport operations and motor vehicle traffic patterns primarily affect the air quality north, south and east of the airport.
- The airport sits at a relatively high elevation with respect to the surrounding area and therefore, pollutants are usually not trapped around SeaTac Airport and do not accumulate.
- Pollutants attributable to airport activity are expected to be highest on the edge of the airport property closest to their source.
- Regional air pollution levels (including airport levels) are relatively low when wind speeds are high.

RATIONALE FOR FURTHER STUDY

Health Issues

Previous reports have identified health issues of concern to the community (WDOH et al., February and December 1999). Scientific studies in other locations have associated exposure to air pollution with some of the same conditions that are high among residents in the SeaTac Airport area. Specifically, in the SeaTac Airport area, there are statistically significantly higher rates of the following:

- lung cancer cases within one mile of the airport compared to the rest of King County and to Washington State;
- oral and pharyngeal cancer cases within one mile of the airport compared to Washington State;
- deaths from lung cancer and chronic obstructive pulmonary disease in an area approximately three miles to the west and north and one mile to the east and south of the airport (defined by census tracts) compared to King County; and
- hospital admission for asthma and pneumonia/influenza in an area approximately three miles to the west, north and east and one half mile to the south of the airport (defined by zip codes) compared to King County.

In addition to associations with air pollution, most of these health concerns have been associated with tobacco smoking. The data on the prevalence of smoking in the SeaTac area are conflicting. Between 1993 and 1997, 17.6% of women giving birth who resided in the vicinity of SeaTac Airport reported smoking during pregnancy. This is statistically significantly higher than the 11.8% for King County as a whole (WDOH et al., February 1999). In contrast, a 1998 survey on adult smoking does not show an increased rate of smoking for residents in South West County compared to King County as a whole. (21.5% in South West County compared to 19.3% overall) (personal communication, David Solet, PHSKC, February 2000). South West County includes but is not limited to the SeaTac Airport area.

Hospital admissions for asthma may be influenced by a mix of risk factors, including asthma prevalence and severity of asthma episodes, the presence of environmental triggers such as a variety of indoor and outdoor air problems, smoking, poor housing and poverty, inappropriate case management, and lack of access to high quality medical care. There are indications that there may be poorer access to and utilization of medical care in the SeaTac Airport area compared to King County as a whole, but the data are limited either to a subset of the population (e.g, data on late prenatal care are limited to mothers giving birth) or to a population not specific to the SeaTac Airport area (i.e., all of South County for data on insurance coverage and unmet need) (WDOH et al., February 1999). With the data available to us, we can only speculate on which of the risk factors for increased asthma hospitalizations predominate.

Although the conditions listed above are associated with air pollution, as well as other risk factors, we have not been able to establish a probable causal relationship between the health of the residents living near SeaTac Airport and air pollution. However, available data do not allow us to rule out air pollution as a contributing factor. Additionally, the health studies are limited by lack of information on several health outcomes of concern to residents (such as adverse birth outcomes) and a lack of information on what pollutants are in the area that may be associated with specific health conditions.

Environmental Justice

In addition to considerations based on health, we can consider people's rights not to be directly impacted by pollution from commercial operations. For example, it is against the law to apply most pesticides in such a way that the pesticide drifts onto land owned by other people.[2] People do not have to prove that exposure to the pesticide is causing health problems in order to require that the applicator change procedures so that the pesticide does not cross a specific boundary. In a similar fashion, the committee questions whether the people living around SeaTac Airport need to prove they are sick to get an understanding of what is in the air surrounding this large enterprise that directly and indirectly (through airport-related traffic) emits significant amounts of pollutants into the air.

Fundamental to the concept of environmental equity is the value that one group of people not incur environmental exposures from commercial activities from which another group benefits. Those who use SeaTac Airport often derive great financial and other benefits from worldwide travel. The extent to which these benefits come at the expense of environmental degradation affecting the people who live around the airport is unknown, since a comprehensive air quality study has not been performed at SeaTac Airport to determine the impacts attributable to airplane emissions and airport-related traffic. Additionally, we have not been able to locate recent comprehensive air quality studies around any major airport and so we cannot try to draw conclusions based on other studies.

[2] Most pesticides have labels that read, "Do not apply this product in a manner that would allow contact either directly or through drift." The label is a federal requirement, enforceable by the state.

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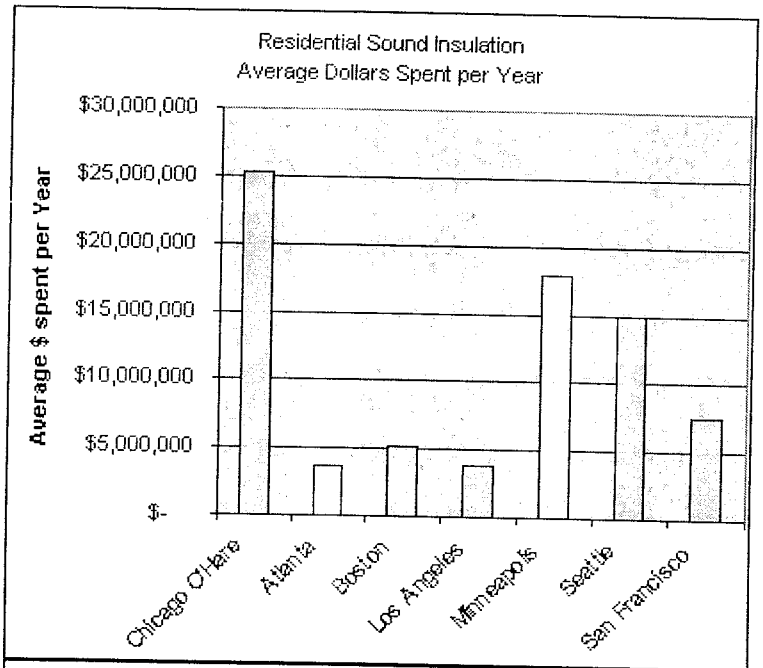
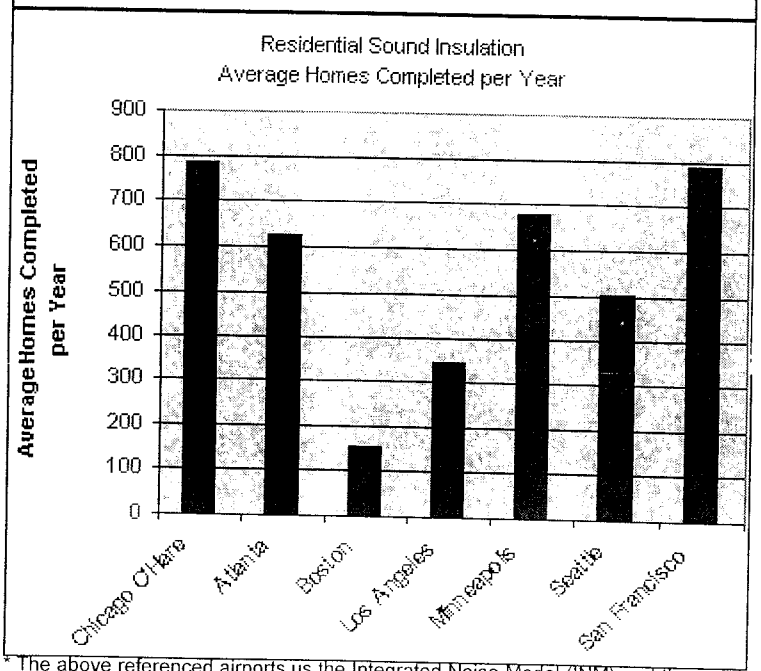
EXHIBIT B

2000 U.S. Airport Noise Mitigation Program Survey:

Residential Sound Insulation Program Results

At the request of the O'Hare Noise Compatibility Commission, the City of Chicago recently surveyed the top 50 airports in the United States in order to learn about each airport's noise mitigation efforts. The results of the Residential Sound Insulation section of the survey are summarized here. Survey responses indicate that the City of Chicago Residential Sound Insulation Program is one of the most extensive in the country.





* The above referenced airports us the Integrated Noise Model (INM) and the metric of DNL or CNEL (California Equivalent) in developing noise exposure contours for the purposes of noise planning.

Airport	Year Began	Number of Dwellings Completed	Amount Spent to Date
Chicago O'Hare	**1996**	**3,394**	**$126,650,000**
Atlanta	1985	10,000	$60,000,000
Boston	1983	2,752	$93,000,000
Los Angeles	1994	2,427	$26,400,000
Minneapolis	1992	6,120	$160,500,000
San Francisco	1985	12,653	$120,000,000
Seattle	1985	8,335	$240,000,000

Code	Topic 1	Topic 2	Comment	Response
15.1	Peak Period Pricing	Benefits	...the implementation of peak period pricing, a management concept considered by Massport in its alternatives analysis but ultimately rejected, would appear to result in much greater reductions in runway delays.	This EIS analysis clearly shows that Peak Period Pricing is an effective delay reduction tool when airline overscheduling occurs (i.e., in the High fleet scenarios). However, Peak Period Pricing is not a substitute for Runway 14/32 in that these two options deal with very different sources of delay. Peak Period Pricing or an alternative demand management mechanism addresses delays that occur if airlines schedules exceed Logan's normal airfield capacity. In contrast, Runway 14/32 prevents delays caused by the major drop in Logan's airfield capacity that now occurs during northwest wind conditions. The Airside EIS analysis shows that Runway 14/32 leads to a substantial reduction in delays, even with peak period pricing in effect. In its Section 61 Findings, pursuant to the Massachusetts Environmental Policy Act, Massport committed to initiating the rule-making process to implement an enforceable peak period pricing program, or an alternative demand management program with comparable effectiveness, for Logan Airport. The objective of this program will be to avoid or reduce delays associated with overscheduling of Logan Airport's available capacity in good weather conditions. The goal is to have a demand management program in place before overscheduling conditions occur at Logan Airport. The FAA acknowledges that Logan Airport is one of the nation's most delayed airports and that Massport has committed to and will propose to implement a demand management program to reduce overscheduling delays. The FAA expects that any such program that is proposed for implementation will be consistent with applicable Federal law. The FAA is working with the U.S. DOT to establish national guidelines for demand management programs at U.S. airports. As part of this national effort, Logan has been selected as one of three airports to serve as a case study for U.S. airport demand management strategies.
15.2	Delay	Statistics	...statistics have shown that delays have been decreasing in recent years. In fact, the FAA has reported that 1998 delays at Logan were 18% lower than 1993 levels. These reductions in delays at Logan have been occurring without the implementation of any airside improvements as proposed, including a new runway.	Using the same FAA OPSNET delay statistics cited in the comment, Logan Airport is consistently one of the most delayed airports in the nation. In 2000, the FAA ranked Logan as the sixth worst airport for total delayed flights and the second worst for arrival delays. Historically, FAA OPSNET delays at Logan Airport reached a peak in 1993 when the airport was subject to airline overscheduling, declined briefly and began rising again. In fact, FAA OPSNET data show that Logan experienced 22 percent more delayed flights in 2000 than in 1993, reaching a record number of delayed flights last year. Arrival delays, which Runway 14/32 is specifically designed to alleviate, have more than doubled since 1993, increasing by 116 percent. Furthermore, the FAA's Airport Capacity Benchmark Study 2001, which analyzed capacity and delays at 31 of the nation's busiest airports, identified Logan as one of 8 airports that experience significant passenger delays. The Airport Capacity Benchmark Study concluded, "New runways at Atlanta and Boston should alleviate delays at those two airports."
15.3	Delay	Band Aid	...this would be only a short-term solution and that in the long term the problem of delay at Logan would not be resolved.	There is no single solution that will eliminate all sources of airside delays at Logan Airport. The Preferred Alternative, specifically Runway 14/32, addresses delays that occur during northwest winds and provides short-term and long-term delay reduction benefits. If no actions are taken, runway-related delays could increase from 120,000 annual hours in 1998 to as high as 333,000 hours under a 37.5M High Fleet scenario. The Preferred Alternative produces immediate and long-term benefits by lowering runway delays by 38,000 hours under 1998 conditions, and by as much as 94,000 hours in the future 37.5M High Fleet scenario. The sooner airside efficiencies are implemented, the more benefits will accrue over time. Section 4.6 of the Supplemental DEIS/FEIR shows that delay reduction benefits increase over time as traffic increases.
15.4	Regional Transportation	Alternatives	...only a comprehensive regional transportation strategy can address adequately.	Several regional transportation studies undertaken in the early 1990s concluded that expanded roles for regional airports, high-speed rail and infrastructure improvements at Logan Airport were needed to meet the

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				region's long-term intercity transportation needs. Federal, state and local agencies throughout the region share the goal of improving New England's transportation network and have already begun to work, both independently and cooperatively, to achieve that goal. Great strides have been made in the last decade. Regional airports have become meaningful alternatives to Logan Airport for certain market segments. Passengers traveling to and from New York can now choose high-speed rail over air travel. These are significant achievements that resulted from years of planning efforts involving many different agencies. Local airport authorities and the FAA were responsible for significant infrastructure investments at the region's airports. Through individual and cooperative efforts, the regional airports have attracted meaningful airline services and have increased their share of the region's travel demand. Massport has assumed operating responsibility for the Worcester Regional Airport, which is capable of handling more of the region's air travel. In just one year, Massport obtained new air services for the airport, which resulted in a two-fold increase in Worcester's passenger traffic. State governments have undertaken a number of road and commuter rail projects to improve access throughout the region and make regional airports more accessible. The Federal Rail Administration and Amtrak have implemented high-speed rail along the Northeast Corridor, the only active high-speed rail service in the nation. To further the role of regional airports, the FAA, Massport, the Massachusetts Aeronautics Commission, the other 5 New England states, the Manchester Regional Airport, and the Rhode Island Airport Corporation are conducting the New England Regional Aviation System Plan, a continuation of the 1995 New England Regional Airports Air Service Study. The study will forecast long-term passenger and cargo demand for the entire region, identify operational capacity and environmental constraints to growth, and formulate strategies for maximizing regional airport use and creating a balanced and efficient regional airport network. Regional airport, aviation and transportation planning officials from each of the six New England states will participate in the study. While greater use of the regional airports and high-speed rail will provide relief to Logan Airport, these initiatives fail to address a significant source of Logan's airside delays. The proposed Preferred Alternative provides clear benefits at recent and future traffic levels by reducing preventable delays that occur during northwest wind conditions. Northwest wind delays at Logan Airport, which inconvenience and create unnecessary costs for hundreds of thousands of air passengers each year, cannot be mitigated through regional alternatives. Refer to Section 3.1 of this Final EIS.
15.5	Delay	Overstated	..the extent of the delay problem due to the lack of runways may be overstated. For 80 percent of the year, Logan operates on three active runways and can achieve its full capacity of 120 operations per hour.	FAA's delay data clearly show that Logan is consistently one of the most-delayed airports in the nation. According to the FAA's OPSNET delay statistics, Logan was the 6th worst airport in terms of delayed operations in 2000. For the same year, Logan was the second worst airport for arrival delays. The Airside analysis clearly shows the delay reduction benefits of the Preferred Alternative in both recent and future operating conditions. Refer to response to Comment 15.3.
15.6	Cumulative	Land use	With the construction of Runway 14/32, the SDEIR/FEIR predicts that the 65dB DNL noise contour would extend well into the waterfront/piers area, which is slated for significant development, including hotels and residences, over the next decade.	The waterfront/piers area of South Boston, which is under redevelopment, is within the Airport's existing 65 dB DNL contour. The FAA has already notified the Boston Redevelopment Association (BRA) that the area being developed should be compatible with the FAA's land use guidelines and that future development should consider sound insulation for residential, hotel, conference and other noise-sensitive uses planned for the site.

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				The arrival and departure paths for aircraft using Runway 14/32 would be over Boston Harbor. Therefore there would be no additional conflict with future development along the South Boston waterfront as a result of the construction of unidirectional Runway 14/32.
15.7	Runway 14/32	Runway Use	The SDEIR/FEIR indicates that the new runway would permit a three-fold increase of annual jet departures from Runway 27 by 2015, compared to the number in 1999, which could seriously disrupt the plans for the new development in the waterfront area.	The predicted increase in flights using Runways 27 and 33L for departure that would occur with the construction of Runway 14/32 has generated numerous public comments. While the increased departures to the west and northwest are consistent with the goals of Logan's Preferential Runway Advisory System (PRAS), community representatives have withdrawn their support for the existing PRAS system. With support from FAA, Massport has committed in its Section 61 Findings,pursuant to the Massachusetts Environmental Policy Act, to work with the Community Advisory Committee (CAC) to reassess the PRAS program. In order to prevent a major change in Logan's runway utilization pending this reassessment of PRAS, the FAA in this Final EIS is proposing to restrict Runway 14/32 for use only during northwest or southeast winds of 10 knots or greater. In proposing this restriction, the FAA expects that the principal delay reduction benefits of the runway would be realized and that runway utilization at Logan Airport would remain consistent with recent patterns. Refer to Section 3.8 of the Final EIS for a discussion of the wind restriction analysis and Section 4.1.2 for operational implementation of the restriction.
15.8	Regional Transportation	Regional Study	...we continue to support first and foremost the pursuit of an effective regional transportation approach to resolving the current problems at Logan.	Refer to response to Comment 15.4.
15.9	Alternatives	Airspace Improvement	We also note that the FAA, cognizant of the delay problem not only at Logan but also at airports throughout the country, recently has modified its approach to air traffic control by opening up more low-altitude routes to major carriers, allowing air traffic controllers to reroute airlines whose scheduled routes would encounter inclement weather (by allowing use of airspace heretofore restricted to Canadian flights and military aircraft), and improving communication between the controllers and the airlines. As a result of these new procedures, delays in April reportedly were reduced 15 percent from the same period last year. The success of such a redesigned FAA procedure clearly is indicative of the feasibility of exploring alternative approaches to reducing delays at Logan and eliminate the need to construct a costly new runway of limited benefit.	The FAA is continually evaluating alternatives to increase efficiency of the national airspace system. However, future FAA initiatives that address airspace delays will not eliminate the need for the proposed airfield improvements at Logan Airport. While Logan Airport's normal airfield capacity is approximately 120 operations per hour, the airport cannot maintain this capacity during moderate to strong northwest wind conditions because of a deficiency in the airfield layout. During these conditions, Logan can only operate on one- or two-runway configurations compared to three-runway configurations typically available in other good weather conditions. Construction of Runway 14/32 is the only measure that would allow Logan Airport to maintain its normal operating capacity during northwest wind conditions. The FAA's national initiatives, while helpful in reducing airspace delays, will not prevent the decline in capacity under northwest wind conditions that occurs at Logan Airport and will not eliminate the need for the Preferred Alternative.

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15.10	Alternatives	Schedule Management	... other, non-physical, strategies should be examined by Massport to reduce the delay problem at Logan before embarking on the...Preferred Alternative, ...Other airports are cooperatively reworking schedules with the airlines. At both LaGuardia Airport in New York and at San Francisco International Airport, for example, the airport operators and the FAA have worked cooperatively with the airlines themselves to limit flights by a lottery system or by fleet alteration (using larger aircraft instead of small planes to reduce the overall number of flights)...This heavy concentration of small-capacity planes is a major contributor to Logan's delay problem. Along with the use of larger planes, a consolidation of flights and an increase in load factors also needs to be pursued with the airlines. Massport, therefore, must create, in cooperation with its airline tenants, an ongoing policy to effectuate much more efficient airline operations at Logan as a more acceptable and feasible remedy to its delay problem. As noted previously, while construction of Runway 14/32 may help during strong northwest wind conditions, Massport needs other options to reduce delays under conditions.	Several of the examples cited of proactive approaches taken by other airport operators are not relevant to Logan Airport. One example refers to San Francisco International Airport which cooperatively worked with United Airlines to re-work its flight schedules at the airport. However, the impacts of the agreement and the magnitude of the resulting benefits are still unclear. Regardless, Logan is not served by a single dominant carrier that could impact the overall hourly demand profile and hence delays to the same degree. The situation at LaGuardia is also different from the Logan situation. LaGuardia's schedules were previously limited by federally imposed slot controls. When Wendell H. Ford Aviation Investment and Reform Act of the 21st century (AIR-21) legislation enacted by Congress in April 2000 allowed airlines to add an unlimited number of small aircraft flights at LaGuardia, hourly demand increased well beyond the airport's good weather capacity and delays grew dramatically, cascading throughout the national air transportation system. The FAA reacted to the unique circumstances at LaGuardia by implementing a temporary cap on AIR-21 slot exemptions and allocating them to airlines via a special lottery. In contrast to LaGuardia, Logan Airport's typical demand does not currently exceed its good weather capacity of approximately 120 hourly operations. While the San Francisco and LaGuardia examples are not appropriate solutions for Logan Airport, Massport has made an effort to influence airline behavior within existing constraints. For example, Massport incorporates a gate management policy into new lease agreements which encourages use of larger aircraft by ignoring regional jets and turboprops when considering minimum gate use standards. In its Section 61 Findings, pursuant to the Massachusetts Environmental Policy Act, Massport committed to implementing an enforceable peak period pricing program, or an alternative demand management program with comparable effectiveness, for Logan Airport. The objective of this program will be to avoid or reduce delays associated with overscheduling of Logan Airport's available capacity in good weather conditions. The goal is to have a demand management program in place before overscheduling conditions occur at Logan Airport. The FAA acknowledges that Logan Airport is one of the nation's most delayed airports and that Massport has committed to and will propose to implement a demand management program to reduce overscheduling delays. The FAA expects that any such program that is proposed for implementation will be consistent with applicable Federal law. The FAA is working with the U.S. DOT to establish national guidelines for demand management programs at U.S. airports. As part of this national effort, Logan has been selected as one of three airports to serve as a case study for U.S. airport demand management strategies.

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15.11	Regional Transportation	Alternatives	Massport must promote a greater transfer of general aviation and cargo operations to the regional airports (especially Worcester, which would be much closer to the Route 495 industries than Logan) before determining that a new runway is absolutely necessary. Both Pease International and the New Bedford Regional Airport also would be excellent candidates to absorb some of the cargo operations now at Logan. Massport needs to promote measures to restrict the use of Logan by general aviation and business jets and to encourage the ...transfer of these flights to more local airports such as Hanscom.	The regional airports already accommodate most of the region's general aviation (GA) activity. According to the FAA's Terminal Area Forecast, actual data for 1999 show that only 5 percent of the general aviation activity that occurred at airports within I-495 was handled by Logan Airport. Hanscom Field, which serves as the region's largest GA reliever airport, accommodated 212,000 GA operations in 2000, more than 6 times the 35,000 GA operations that occurred at Logan Airport. In 2000, all-cargo operations accounted for less than 3 percent (12,282 operations) of total aircraft operations at Logan Airport. Since the majority of all-cargo operations occur during off-peak hours, i.e., periods of low-demand, they do not contribute to airside delays at Logan Airport. Thus, while the potential for all-cargo operations at airports like New Bedford and Pease may lessen the demand for all-cargo operations at Logan Airport, it would not reduce airside delays at Logan Airport. The upcoming New England Regional Aviation System Plan Update will forecast long-term passenger and cargo demand for the entire region, identify operational capacity and environmental constraints to growth, and formulate strategies for maximizing the use of regional airports for passenger and all-cargo services. Greater use of regional airports may lessen the region's reliance on Logan Airport, but because it will not address a unique aspect of Logan's airside delays, it is not a substitute for the Preferred Alternative. While Logan Airport's normal airfield capacity is approximately 120 operations per hour, the airport cannot maintain this capacity during moderate to strong northwest wind conditions because of a deficiency in the airfield layout. Logan can only operate on one or two runways during moderate to strong northwest winds compared to the typical three-runway configurations used in all other VFR conditions. Increased use of regional airports will not prevent the decline in Logan Airport's capacity that occurs under northwest wind conditions. Construction of Runway 14/32 is the only measure that would allow Logan Airport to maintain its normal operating capacity during northwest wind conditions.
15.12	Delay	Band Aid	While we recognize that construction of Runway 14/32 could, to some extent, reduce delays at Logan, we believe that the impacts of this proposal on the residents of Boston and adjacent communities could far outweigh its potential benefits. In fact, the benefits would not be substantial; by Massport's own analysis future projected delay would be reduced by only approximately 20 percent. Any more significant delay reductions would be short-term - approximately five years - and would become less and less important as the projected growth in aircraft operations occurs in future years.	Based on simulation modeling, Logan Airport experienced 120,000 hours of runway-related delays in 1998. If no actions are taken, runway-related delays are forecast to grow as high as 333,000 hours under a 37.5M High Fleet scenario. The Preferred Alternative produces immediate and long-term benefits by lowering runway delays by 38,000 hours under 1998 conditions, and by as much as 94,000 hours in the future 37.5M High Fleet scenario. The sooner airside efficiencies are implemented, the more benefits will accrue over time. Section 4.6 of the Supplemental DEIS/FEIR shows that delay reduction benefits increase over time as traffic increases. The FAA and this EIS document acknowledge that there are multiple causes of delays at Logan that require multiple solutions. In addition to the Preferred Alternative, the FAA and Massport are committed to increasing the use of regional airports to lessen the region's reliance on Logan Airport. To further the role of regional airports, the FAA, Massport, the Massachusetts Aeronautics Commission, the other 5 New England states, the Manchester Regional Airport, and the Rhode Island Airport Corporation are conducting the New England Regional Aviation System Plan, a continuation of the 1995 New England Regional Airports Air Service Study. The study will forecast long-term passenger and cargo demand for the entire region, identify operational capacity and environmental constraints to growth, and formulate strategies for maximizing regional airport use and creating a balanced and efficient regional airport network. In its Section 61 Findings, pursuant to the Massachusetts Environmental Policy Act, Massport committed to implementing an enforceable peak period

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				pricing program, or an alternative demand management program with comparable effectiveness, for Logan Airport. The objective of this program will be to avoid or reduce delays associated with overscheduling of Logan Airport's available capacity in good weather conditions. The goal is to have a demand management program in place before overscheduling conditions occur at Logan Airport. The FAA acknowledges that Logan Airport is one of the nation's most delayed airports and that Massport has committed to and will propose to implement a demand management program to reduce overscheduling delays. The FAA expects that any such program that is proposed for implementation will be consistent with applicable Federal law. The FAA is working with the U.S. DOT to establish national guidelines for demand management programs at U.S. airports. As part of this national effort, Logan has been selected as one of three airports to serve as a case study for U.S. airport demand management strategies.
15.13	Peak Period Pricing	Benefits	For the 2010 37.5M High Fleet and the 2010 45M High Fleet scenarios, implementation of the Preferred Alternative actually would result in a substantially larger number of total delay hours than implementation of an alternative that includes all proposed actions (including peak period pricing) except Runway 14/32...And for these fleet scenarios plus the 2010 37.5M Low Fleet and the 37.5 High Regional Jet Fleet, the Preferred Alternative again would result in more hours of delay than an all-action alternative (which clearly demonstrates the added benefits of including peak period pricing as a management strategy, a concept rejected by Massport).	This EIS analysis clearly shows that Peak Period Pricing is an effective delay reduction tool when airline overscheduling occurs (i.e., in the High fleet scenarios). However, Peak Period Pricing is not a substitute for Runway 14/32 in that these two options deal with very different sources of delay. Peak Period Pricing or an alternative demand management mechanism addresses delays that occur if airlines schedules exceed Logan's normal airfield capacity. In contrast, Runway 14/32 prevents delays caused by the major drop in Logan's airfield capacity that now occurs during northwest wind conditions. The Airside EIS analysis shows that Runway 14/32 leads to a substantial reduction in delays, even with peak period pricing in effect. In its Section 61 Findings pursuant to the Massachusetts Environmental Policy Act, Massport committed to initiating the rule-making process to implement an enforceable peak period pricing program, or an alternative demand management program with comparable effectiveness, for Logan Airport. The objective of this program will be to avoid or reduce delays associated with overscheduling of Logan Airport's available capacity in good weather conditions. The goal is to have a demand management program in place before overscheduling conditions occur at Logan Airport. The FAA acknowledges that Logan Airport is one of the nation's most delayed airports and that Massport has committed to and will propose to implement a demand management program to reduce overscheduling delays. The FAA expects that any such program that is proposed for implementation will be consistent with applicable Federal law. The FAA is working with the U.S. DOT to establish national guidelines for demand management programs at U.S. airports. As part of this national effort, Logan has been selected as one of three airports to serve as a case study for U.S. airport demand management strategies.

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15.14	Runway 14/32	Impacts to Jeffries Point	...the SDER/FEIR does not adequately address either the potential noise impacts (particularly ground roll takeoff noise) or odor impacts on the Jeffries Point neighborhood of East Boston with the construction and use of the proposed Runway 14/32. Since jets would be taking off in a southeast direction, with the wind, the full extent of takeoff noise would be felt by Jeffries Point. If these winds were strong or weather conditions were bad, the noise impacts would be even more noticeable. Further, these impacts most likely would not be identified in the INM modeling, since Massport acknowledges that the INM only addresses average conditions and makes no provision for accommodating bad weather days, strong winds, temperature increases, and similar non-standard conditions. Moreover, the noise impacts would be further exacerbated by propagation from the water surface of Jeffries Point Cove. ..the SDEIR/FEIR does not address the potential for odor impacts on the Jeffries Point neighborhood...Under certain climatic and wind conditions, aircraft-related odors would be expected to have an adverse effect on the residents of Jeffries Point...A detailed study and evaluation of potential odor effects, therefore, needs to be undertaken.	Section 5.2.2.2 as well as Appendix E of the Supplemental DEIS/FEIR address the INM and how its standard predicted levels have been adjusted upward by 6 decibels to accommodate differences between measured and modeled sound levels, particularly as they are affected during early stages of takeoff by the propagation of sound over Boston Harbor. This adjustment procedure is unique to Logan Airport; it is the only facility in the country to have received FAA approval for use of such a correction, based largely on data collected from Massport's permanent close-in noise monitors which operate continuously throughout the year in all types of weather. One of the monitors used in justifying the adjustment was Site 14 located at the Jeffries Point Yacht Club just at the edge of the Jeffries Point neighborhood to which the commenter refers. Table 5.2-5 in the Supplemental DEIS/FEIR shows that the difference between the measured and modeled DNL values attributable to aircraft at the Jeffries Point Yacht Club was only 0.3 dB in 1998, the modeled level being just slightly higher. A subsequent comparison of the measured and modeled noise exposure levels due to aircraft at this monitoring location was included in the 1999 Environmental Status and Planning Report for Logan Airport; it shows annual average DNL values for 1999 also agree extremely well, differing only by 0.5 decibels, the INM-predicted level again being slightly higher. A dispersion analysis of odor-causing VOC compounds was undertaken as part of the Supplemental DEIS/FEIR. Jeffries Point was among the areas analyzed. The findings indicate that the Preferred Alternative will result in lower concentrations of odor-causing VOCs or that the change in concentrations will be imperceptible.
15.15	Mitigation	Commitments	...there is no guarantee that a commitment to a unidirectional limitation would be maintained in the future. Current agreements to this effect can be changed (cf. Massport's and the FAA's present proposal to cancel the 1980 agreement not to reduce the landing minimum on runway 15R), and physical restrictions (such as the current lack of a taxiway to accommodate takeoffs from the runway 32 end) can be addressed through new construction. Further, although the SDEIR/FEIR states that the presence of the Hyatt Conference Center would prohibit arrivals on Runway 14, there is no similar statement in this document regarding takeoffs from the Runway 32 end.	The discussion of the unidirectional limitation of Runway 14/32 set out in the Supplemental DEIS/FEIR and Final EIS is intended to provide assurances by Massport and the FAA that this limitation will not be altered. Neither Massport nor the FAA have any plans or expectations that such a limitation will change. At the very least any future attempt to alter this commitment will require review and approval under both state (MEPA) and federal (NEPA) environmental review requirements. In addition, Massport is willing to enter into an appropriate contractual agreement with another governmental unit and/or representative community group. Such an agreement would allow Runway 14/32 to be constructed and operated as a unidirectional runway only. Once an agreement between Massport and appropriate governmental and/or other parties is concluded, as contemplated in Massport's Section 61 Findings commitments pursuant to the Massachusetts Environmental Policy Act, any change to the unidirectionality commitment would require the consent of all the parties to the agreement.
15.16	Regional Jets	Runway 14/32 Utilization	Due to its restricted length (5,000 feet), the predicted use of Runway 14/32 may not be as high as projected by Massport.	The FAA performed an independent analysis of RJ utilization of the proposed Runway 14/32 at Logan. It should be noted that Runway 14/32 will primarily accommodate arrivals and that required landing distances for arriving aircraft are typically shorter than the distances required for takeoffs. Using the assumptions provided by the FAA's analysis and described in Appendix C of the Supplemental DEIS/FEIR, most of the regional jets forecast to use Logan Airport in the future are capable of landing on a 5,000 foot runway. Of the 184,000 regional jets in the 37.5M High RJ fleet, 43,000 are Dornier 328Jets, 36,000 are CRJs, and 100,000 are Embraer 135/145s. The remaining regional jets are larger 70-seat models that were assumed to be incapable of

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				landing on Runway 32. Assuming that the Dornier 328 Jets could land under any conditions and that the Embraers could land under dry conditions (which occur 88 percent of the time), approximately 131,000 regional jets, or 71 percent of the future regional jet, are able to land on Runway 32. This constitutes most of the regional jets forecasts to use Logan Airport in the future. Using those same assumptions, approximately 79 percent of Logan Airport's recent regional jet operations (June 2001) could land on Runway 32. Refer to Section 3.3 of this Final EIS for a complete discussion of the utilization of Runway 14/32 by regional jets. In addition, several of the largest regional carriers that operate regional jets at Logan Airport, including American Eagle and ACJet (a Delta Connection carrier), have provided letters confirming their intentions to use Runway 14/32 when it becomes operational. Refer to Appendix F of this Final EIS for letters from these airlines as well as other airlines and the Air Transport Association.
15.17	Regional Jets	Runway 14/32 Utilization	...experience at other airports indicates that regional jet operators generally request runway lengths greater than 5,000 feet to provide an added margin of safety, leading to non-use or a low-volume use of similar runways at other airports. At the New Haven Airport,...regional jets are requiring a 7,000-foot runway, and similar requests have been made for Cleveland Hopkins International Airport and others...planning studies for airports contemplating new runways indicated the need for runway lengths of 6,000-7,000 feet to accommodate regional jet service.	Appendix C of the Supplemental DEIS/FEIR, Review of Forecast Regional Jet Use, Proposed Runway 32 at Logan International Airport, clearly states that the request for a 7,000 foot runway during construction staging at Cleveland was based on a need to accommodate 90 percent of all jet landings, including larger narrowbody jets that require longer runway lengths than regional jets. New Haven Airport is engaged in a master planning process and has not made any final plans. It is premature to draw any conclusions from New Haven's preliminary planning. Refer to Section 3.3 of this Final EIS for a complete discussion of the utilization of Runway 14/32 by regional jets, including an analysis of RJ utilization at other airports. Using the assumptions provided by the FAA's independent review and described in Appendix C of the Supplemental DEIS/FEIR, most of the regional jets forecast to use Logan Airport in the future are capable of landing on a 5,000 foot runway. Of the 184,000 regional jets in the 37.5M High RJ fleet, 43,000 are Dornier 328Jets, 36,000 are CRJs, and 100,000 are Embraer 135/145s. The remaining regional jets are larger 70-seat models that were assumed to be incapable of landing on Runway 32. Assuming that the 328 Jets could land under any conditions and that the Embraers could land under dry conditions (which occur 88 percent of the time), approximately 131,000 regional jets, or 71 percent of the future regional jet fleet, are able to land on Runway 32. This constitutes most of the regional jets forecasts to use Logan Airport in the future. Using those same assumptions, approximately 79 percent of Logan Airport's recent regional jet operations (June 2001) could land on Runway 32. Many factors determine the length requirements of new runways at specific airports. It is incorrect to assume that the reasons for various runway lengths at other airports also apply to Logan Airport. At Logan, the largest regional jet airline operators, including American Eagle and ACJet (a Delta Connection carrier), have provided letters confirming their intentions to use Runway 14/32 when it becomes operational. Refer to Appendix F of this Final EIS for letters from these airlines as well as other airlines and the Air Transport Association.

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15.18	Regional Jets	Runway 14/32 Utilization	At Baltimore-Washington International, where a 5,000-foot runway has been available since the late 1980s, an ongoing capacity study indicated no significant landing activity on this runway by regional jets (FAA study). And at Philadelphia International Airport, a relatively new 5,000-foot runway (which also is unidirectional as proposed at Logan) has only very minimal use by all commuter jets, not just CRJ's. The FAA reports that only a dozen airplanes a day, less than 1 % of the airport's total of 1,300 plus arrivals and departures, are currently using the runway,...Airport officials had expected a 30% reduction in delays at the airport with the construction of the runway; in fact, they have experienced only an 8% to 12% decrease in delay.	The situations at Philadelphia and Baltimore are very different from the proposed Runway 14/32 at Logan, and the lack of use of 5,000 foot runways at those airports is not an indication of future use of the proposed Runway 14/32 at Logan. At Philadelphia, the design of the 5,000 foot Runway 8/26 was originally intended to provide additional capacity under instrument conditions by separating jet and commuter operations. However, use of Runways 26 and 27L for arrivals creates a wake vortex dependency between the arrivals on 27L and the departures on 27R that adversely affects the jet capacity. Hence, the use of the 5,000 foot runway at Philadelphia actually lowers the capacity of Runway 27R. In VFR conditions, Runway 26 produces little or no increase in VFR airfield capacity, and air traffic control reportedly finds it simpler to operate on the existing configuration. The remote location of Runway 8/26 requires a long and complex taxi route to the main terminal area, and the runway also has a significant down slope that increases landing distances and could restrict some aircraft from using the runway. These conditions are specific to Philadelphia and do not apply to Logan. It should also be noted that the lack of runway use is not an RJ issue. Philadelphia has significantly more turboprop operations than regional jet operations, and even these turboprops are not using Runway 8/26. The 5,000-foot Runway 15L/33R at Baltimore Washington International Airport is an extended general aviation (GA) runway located adjacent to the general aviation ramp. Due to the proximity of a nearby residential area, the airport has imposed strict noise limits that explicitly prohibit any use of the runway by commercial jets. This noise rule precludes regional jet use of the BWI runway. In fact, many GA jets such as Lear 35s and Citation IIs are also restricted from using the runway, as are some turboprops such as the ATR-72. Refer to also response to Comment 15.17.
15.19	Centerfield Taxiway	Safety	With regard to the safety issues, the proposed Centerfield Taxiway would be located between two of the most heavily-utilized runways at Logan. In spite of assurances that runway markings, air traffic control procedures, and electronics approach guidance during poor visibility would make mistaking the taxiway for a runway "highly improbable", errors can occur...especially if a pilot is not familiar with the airport.	Taxiways do not appear the same as a runway to a pilot and cannot be easily mistaken for a runway. The width, markings, and lighting all distinguish them clearly, as do electronic navaids in most cases. At night and during low-visibility conditions, the type, location, color and intensity of lighting clearly differentiate runways from taxiways. Pilots are professionally trained and study the runway layout of every airport before landing. Parallel taxiways are a common airfield layout. Air carrier pilots must be carefully familiarized with an airport before operating to it. Commercial flights all have two pilots to cross-check each other. Student pilots are prohibited from flying to or from Logan. The FAA has established airport design principles and standards in Advisory Circular 150/5300-13 which, among others, specify minimum separations between runways and taxiways and recommend a parallel taxiway for each runway. The Logan taxiway improvements will comply with all FAA design standards, including the distance from the runway. In fact, the Centerfield Taxiway would be the same distance from Runway 4L/22R as Taxiway November, and twice as far from Runway 4R/22L. In response to public comments on the Supplemental DEIS/FEIR, a review of the use of the Centerfield Taxiway, as well as the other taxiway improvements, was conducted in April 2002 to examine any safety-related issues. Representatives of the FAA, including the Flight Standards Division and Runway Safety Office, performed this review along with Massport personnel. They concluded that no decrease in safety is expected compared to the current operation and confirmed that the taxiway improvements would enhance the safety and efficiency of Logan operations. Refer to Section 3.9 of this Final EIS.

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15.20	Centerfield Taxiway	Impacts	...of the Centerfield Taxiway would provide...an alternative, and additional, route to Taxiway November to approach Runways 22L and 22R. Since both the Centerfield Taxiway and Taxiway November could be used at the same time, the number of aircraft approaching the runway ends, and particularly on hold positions, could more than double current usage, thus increasing, rather than decreasing, noise, odor, and air quality impacts on the Bayswater neighborhood of East Boston,	The Centerfield Taxiway will not change the number of aircraft scheduled to depart Logan airport. The taxiway improvements will improve ground movement efficiency and reduce taxiing delays, thereby reducing associated noise and emissions. During busy periods, the Centerfield Taxiway will allow heavy aircraft departing on Runway 22L to avoid the queue of aircraft waiting on Taxiway November to depart on Runway 22R. Occasionally, when an aircraft on Taxiway November is disabled or its departure delayed by enroute ATC constraints, the Centerfield Taxiway would allow following aircraft to bypass the queue and taxi to Runway 22R. All the delay savings would translate into reduced noise and emissions to the Bayswater neighborhood. The analysis of ground noise and air quality that was presented in the Draft EIS/EIR shows that the taxiway improvements would produce very small, and sometimes beneficial, changes in ground noise or air pollution concentrations at the receptor sites most impacted by the Centerfield Taxiway, i.e., those in the Bayswater and Constitution Beach areas of East Boston and Loring/Court Road area of Winthrop. The ground noise and air quality impacts of the Centerfield Taxiway at these sites are summarized in Section 3.10 of the Final EIS. As a result of public concerns about impacts from the operation of the Centerfield Taxiway, FAA is proposing to complete a study to evaluate operational procedures to further reduce Centerfield Taxiway impacts while preserving the operational and environmental benefits shown in the EIS. This study will be coordinated with affected parties and will address taxiing operations in the northern portion of the airfield, both on the existing Taxiway November and on the proposed Centerfield Taxiway. Section 4.2 of this Final EIS discusses this study in more detail. If the FAA decides to conduct such a study, then no decision will be made on the Centerfield Taxiway until the study is completed.
15.21	Mitigation	Air Quality	...we would recommend that Massport seriously consider requiring single engine taxiing at Logan, including on Runway November.	As part of the Section 61 Findings, pursuant to the Massachusetts Environmental Policy Act, adopted by Massport, the Authority will develop and implement a program designed to maximize the use of single-engine taxi procedures, consistent with safety, pilot judgment and federal law. Refer to Appendix B of this Final EIS.
15.22	Reduced Minimums	Purpose and Need	...we are opposed to the reduction in landing minima (on 22L, 27, and 15R), especially in light of the minimal benefits achieved.	The improvement concepts included in the Preferred Alternative are designed to enhance airfield efficiency and safety as well as to reduce delays. The FAA is the project proponent for the reduction of approach minimums on Runways 22L, 27, 15R, and 33L. The primary purpose of reducing the approach minimums on these runways is to promote safety by providing positive instrument guidance at low altitudes, by allowing aircraft to use runways more aligned with the wind during low visibility conditions, and by reducing the probability of missed approaches. The proposed reduced minimums at Logan Airport would be consistent with recommended practices as established in FAA Order 8260.3B, United States Standards for Terminal Instrument Procedures.

Code	Topic 1	Topic 2	Comment	Response
15.23	Reduced Minimums	Safety	...we do note an apparent discrepancy in the Supplemental DEIS/FEIR analysis. Although the text on page 3-36 claims that reduced minima alone would provide an annual delay reduction of approximately 6,000 hours, the data in Table 3.4-1 would seem to indicate an additional runway availability of only 392 hours...our concerns relate to both safety considerations and potentially increased noise impacts...the approach flight paths of these runways pass over heavily populated residential neighborhoods (Eagle Hill and Day Square in East Boston for Runway 15R, Orient Heights for Runway 22L, and the Port Shirley neighborhood of Winthrop for Runway 27). Although the FAA argues that the reduced minima would be consistent with the standard in effect at most other airports, these airports generally are located in more rural areas at a distance from city centers and do not have dense populations under their flight paths.	Table 3.4-1 refers to the total number of delay hours saved, while page 3-36 refers to the number of annual hours of runway availability. With the proposed reduced minimums, the percentage of equivalent jet arrival operations would decrease by 0.4 percent on Runway 4 and increase by 0.2 percent on Runway 15 and 0.1 percent on Runway 22L. These small increases in arrival operations would not have a measurable effect on the Day-Night Sound Levels under the approaches. The reduced minimums will enhance safety by providing positive instrument guidance at low altitudes, by allowing arriving aircraft to use runways more closely aligned with the prevailing wind during low visibility conditions, and by reducing the probability of missed approaches. Reduced minimums do not change the approach path or glideslope of arriving aircraft. Rather, they shift the location along the approach path at which a missed approach decision is initiated to a point closer to the airport and away from the communities. For Runways 27 and 22L, the reduced minimums will make the approach procedures flown by pilots more consistent with typical FAA guidance in effect at comparable airports, including airports with dense populations under their flight paths such as New York LaGuardia, Washington Reagan National, Philadelphia, Miami, and Los Angeles.
15.24	Reduced Minimums	Impacts	We also are not convinced that lowering the landing minima would result in significant noise benefits for the residents living under the approach paths to the subject runways. Although the decision point would be located closer to the airport than at present, we question whether the noise impact analysis has been based on actual operational characteristics rather than simple INM modeling, i.e., whether the analysis has taken into account the much greater level of thrust that would be required to execute a missed approach procedure at the lowered decision point than at the current points. Moreover, the lower cloud cover that often is present during poor weather conditions would tend to amplify noise levels from aircraft events, which also generally would last longer than on a clear day. As a result, adverse noise impacts on residents near the landing zones more likely would be exacerbated rather than reduced.	Reducing the landing minimums at Logan Airport does not lower the glide slope of the arriving aircraft. Therefore, the reduced minimums will not result in a measurable increase in noise exposure or air emissions. Instead, reduced landing minimums will enhance safety by providing positive instrument guidance to a point closer to touchdown, by allowing arriving flights to use runways more closely aligned with the prevailing wind during low visibility conditions, and by reducing the probability of missed approaches. Differences in noise exposure that will occur will be minor. With the proposed reduced minimums, the percentage of equivalent jet arrival operations would decrease by 0.4 percent on Runway 4 and increase by 0.2 percent on Runway 15 and 0.1 percent on Runway 22L. These small increases in arrival operations would not have a measurable effect on the Day-Night Sound Levels under the approaches. Additionally, most of the neighborhoods now exposed to occasional higher noise levels from the application of power during a missed approach would, in the future, experience reductions up to 10 dB because the proposed reduced minimums would shift the location of the missed approach decision approximately 3/4ths of a mile closer to the airport and generally further from neighboring communities (Refer to Section 3.4 of the Draft EIS/EIR). Finally, the lower decision heights should result in fewer missed approaches since more aircraft will be able to land without executing a go-around in poor weather. Runways proposed for reductions in minimums already have IFR minimums and pilots presently use these runways in poor and wet conditions. Reductions of these minimums to lower ceiling heights and visibility would have an insignificant effect on either aircraft power, flaps settings, or sound propagation, and therefore have no measurable impact on noise.

Code	Topic 1	Topic 2	Comment	Response
15.25	Peak Period Pricing	Implementation	We strongly recommend that Massport institute a program of peak period pricing at Logan to determine its efficacy in substantially reducing delays before proceeding with the costly and controversial runway and taxiway construction proposals and the reduction in landing minima, all of which we feel require further study.	Refer to response to Comment 15.13.
15.26	Environmental Justice	2000 Census Data	We believe that there is a serious deficiency with the environmental justice analysis...based on outdated, 1990, Census data rather than the currently-available 2000 data. Census data for 2000, for example, show a dramatic increase in minority population in East Boston, from 24% of the population in 1990 to 50% in 2000. Although income data are not yet available, since the minority increase is primarily immigrants, they can be expected to be largely low-income persons. Minority populations also increased substantially in South Boston, a neighborhood which would be directly affected by the additional flights off of Runway 27. In this neighborhood, minorities increased from 5% of the population in l990 to 15% in 2000, and in terms of actual numbers grew by nearly 245%.	The 2000 Census data regarding minority populations was not available when the Supplemental DEIS/FEIR went to print in March 2001. The Environmental Justice analysis relative to minority populations has been updated in this Final EIS to reflect Year 2000 Census data on total population, race and ethnic origin at the block level, which was released by the US Census Bureau on March 21, 2001. (The Census Bureau will not begin to release comparable data on income on a state by state basis until June 2002 at the earliest.) While the Census 2000 data show that the minority population of the communities around Logan has increased, particularly in East Boston, the percentage of the population within the 29M Low 65 dB DNL contour that is minority is the same for both the No Action and Preferred Alternative. Furthermore, approximately 34 percent of the Year 2000 population within the 29M Low 65 dB DNL contour for the Preferred Alternative is minority, compared to the total Year 2000 population for Boston, Chelsea, Revere and Winthrop, which is 48 percent minority. Therefore, the Preferred Alternative does not result in a disproportionate adverse impact on minority populations. Refer to Section 3.6 of this Final EIS for additional information.
15.27	PRAS	Runway Use	...the future noise contours shown in the SDEIR/FEIR appear to be based on the optimal use of the PRAS (never actually achieved in the past) rather than on the more realistic actual runway usage.	The modeled future contours reflected a greater compliance with PRAS than would occur without Runway 14/32, taking into account the greater flexibility available to air traffic control after implementation of the Preferred Alternative. The modeled future contours also take into account weather, demand, and other practical limitations on conformance with PRAS. During strong winds, poor weather, and/or very high demand periods, the controllers have little or no flexibility for runway selection and PRAS recommends an appropriate runway configuration. When weather, winds and demand permit a choice of configurations, then PRAS will make a recommendation that provides short-term relief and/or distributes the noise in closer accordance with the annual noise goals. Unidirectional Runway 14/32 could provide the controllers more flexibility to improve PRAS performance compared to the No Action alternative. The Supplemental DEIS/FEIR demonstrates that the controllers have been improving performance relative to the PRAS recommendations. Section 8.5 of the Supplemental DEIS/FEIR discusses methods for more comprehensive monitoring and reporting of PRAS. These methods will be implemented as part of the mitigation program for the Airside Project. Refer to Chapter 4 of this Final EIS for more information on project mitigation.

Code	Topic 1	Topic 2	Comment	Response
15.28	Health	Health Study	Neither the FAA nor Massport have conducted any comprehensive or independent study of the potential health effects of the proposed Preferred Alternative. Rather, these agencies merely rely on existing available studies for the analysis and conclusion that there is no apparent casual relationship between health issues and proximity to the airport. ...[according to the 1999 Environmental Status and Planning Report for Logan Airport, (Massport, December 2000) [NOx emissions from aircraft at Logan are projected to increase by 33% by 2015. NOx pollution causes smog, which exacerbates respiratory diseases, including asthma...The SDEIR/FEIR, however, fails to address this impact appropriately or to provide any substantive analysis.	Compared to the No Action Alternative, the Preferred Alternative would orient more flights over Boston Harbor, reduce noise in the areas experiencing the highest noise impacts, and improve air quality. These environmental benefits are not detrimental to the public health. Furthermore, the Massachusetts Department of Environmental Protection (DEP) has monitored EPA criteria air pollutants (e.g., CO, NO2, SO2, PM) in close proximity to Logan Airport for several years at the Bremen Street site. Notably, this monitoring data has not identified any violations of the Ambient Air Quality Standards over this timeframe. Massport has been cooperating with the Commonwealth of Massachusetts and the City of Boston on public health issues and will continue to facilitate monitoring of airport-related emissions by DEP and others, by assisting in monitoring site selection and providing agencies with air quality data, airport activity data, and meteorological data. Massport has shared the results of the Soot Deposition Study with public health agencies and is cooperating with the Harvard School of Public Health on the South Boston Particle Source Apportionment Study, as well as with the Massachusetts Department of Public Health, which is conducting a study of the relationship between air pollution and public health, focusing on respiratory and cardiovascular effects for communities within a five-mile radius of Logan Airport. In addition, Massport is conducting an air quality monitoring program in neighborhoods surrounding the airport. Monitoring results will be presented in the ESPR and annual updates. While the Airside Project will decrease NOx emissions from airport operations in comparison with the No Action Alternative, the FAA notes that Massport has developed, and EOEA has approved, the Logan Air Quality Initiative (AQI) as a means of reducing the growth of air emissions associated with Logan Airport. Although the primary aim of the AQI is the mitigation of NOx emissions, many of the measures will also result in substantial reductions in other air pollutants (e.g. CO, VOCs, particulate matter). The progress of the AQI, as well as other air quality improvement programs already in-place at Logan Airport, will be reported on annually in the Logan Airport Environmental Statue Planning Report (ESPR) or its annual update, the Environmental Data Report. These air quality initiatives relate to the overall impacts of the airport and are not part of the Airside Project EIS.
15.29	Health	Noise Impacts	Health problems resulting from noise exposure likewise have not been adequately addressed in the Supplemental DEIS/FEIR. A 1993 World Health Organization report on noise exposure and effects found that noise pollution gives rise to a large number of health problems, including hearing impairment and loss, sleep disturbances, adverse cardiovascular effects, mental disorders, and a detrimental impact on children's learning abilities.	The FAA, EPA, HUD, and other federal agencies have identified DNL 65 dB as the level below which residential land uses are considered compatible. These guidelines were re-confirmed by the Federal Interagency Committee on Noise (FICON) in 1992. Indeed, the WHO Guidelines document (referred to in the comment) states that regulatory standards usually include aspects other than scientific data, including "technological feasibility, costs of compliance, prevailing exposure levels, and the social, economic, and cultural conditions (Chapter 5)." Finally, compared to the No Action Alternative, the Preferred Alternative would orient more flights over Boston Harbor, reduce noise in the areas experiencing the highest noise impacts, and improve air quality. These environmental benefits are not detrimental to the public health.

Code	Topic 1	Topic 2	Comment	Response
15.30	Water Quality	Impacts	We have a concern that the proposed redirection of stormwater discharge in the southwest corner of the airfield (the proposed location of Runway 14/32) from the West Outfall, which is equipped with a pollution control facility, to the perimeter outfalls may result in a degradation in the water quality of the adjacent Boston Harbor, particularly from the discharge of deicing fluids when used on the new runway (if ultimately constructed). Although Massport does plan to install a low-flow water quality treatment structure to collect first-flush runoff, this may not be sufficient to control adequately potential pollutant discharges.	The Preferred Alternative will not result in any adverse effect on water quality. Portions of the airfield drainage to be redirected from the West Outfall are areas that do not generate high levels of suspended solids or other contaminants. Runoff from these areas is similar in quality to other sections of the airfield that currently discharge directly to the harbor. Data has shown that deicing chemicals have an insignificant impact on the quality of harbor waters. The first-flush stormwater chamber will provide an additional level of treatment to minimize the potential for discharge of contaminants to the harbor. Massport routinely monitors water quality pollutants in accordance with its responsibilities under the Clean Water Act. Massport's outfall sampling summary for Logan Airport in 1999 is contained in Appendix H of the 1999 ESPR. The data for 2000 will be presented in the 2000 Environmental Data Report (EDR).
15.31	Fleet Mix/ Forecasts	2000 Base Year	...the SDEIR/FEIR is based on 1998 data rather than the more recent, and available, 1999 data (v. the 1999 Environmental Studies and Planning Report (ESPR) for Logan Airport, EOEA #3247)...the SDEIR/FEIR not only references the I999 ESPR in several sections of the document but even includes in some cases year 2000 data (e.g., Table 1.3-1)...the air quality evaluation is based on even more outdated 1997 data, even though 1999 data existed and was used in the 1999 ESPR. Notwithstanding the assertion of Massport that there is little difference between 1998 and I999 data, we believe that the more recent data should have been used for the analysis, especially to provide consistency throughout the document.	The Supplemental DEIS included delay and environmental analyses from the 1998 Annual Update to reflect more recent conditions than the original 1993 base year, which represented the latest actual data when the EIS process began, and to provide context to the delay problem at Logan Airport. Regardless of the base year, the appropriate comparison for assessing the benefits and impacts of proposed project improvements is a comparison of the various proposed alternatives to the No Action Alternative within each future fleet, rather than a comparison of alternatives in future year operating conditions to the base year.
15.32	Noise	Mitigation	The SDEIR/FEIR states (page 8-3) that as part of the project-specific mitigation program sound insulation would be provided to all residences newly included within the Preferred Alternative 65dB DNL contour "for the 29M low Fleet scenario." There is no mention whether such funding would be made available for any other scenario, including the 37.5M High Fleet scenario (which results in a 994% increase in exposure in the Eagle Hill neighborhood of East Boston!) and the High Regional Jet Fleet alternative.	While the fleet projections in this EIS cover a wide range of possible outcomes, the 29M Low scenario was chosen for the initial sound insulation program because it generally represents a worst-case condition with the highest number of people exposed to DNL levels greater than 65 dB. For example, using East Boston, the 37.5M High Fleet, and the 1990 census data (See Section 3.6 of this Final EIS), the number of people within the 65 dB DNL contour increased from 3,006 under the No Action Alternative to 4,247 under the Preferred Alternative. However, under the 29M Low fleet, there were 7,117 people within the 65 dB DNL No Action contour and 7,256 within the 65 dB DNL contour for the Preferred Alternative. There were also 58 people within 29M Low No Action 75 dB DNL contour. As the 29M Low Fleet has more Stage 2 and hushkitted aircraft, it is generally the worst-case condition, so it is this fleet that is used for soundproofing. Massport will submit an update of its residential sound insulation program following implementation of the Preferred Alternative. For more information, refer to Section 6.2 of the Supplemental DEIS/FEIR and Appendix L of the Draft EIS/EIR.
15.33	Mitigation	Sound Insulation	A clarification regarding Massport's commitment to extending the sound insulation program to the newly included eligible residences, regardless of the availability of additional federal funding, is necessary, along with a timetable for implementation.	As stated in Massport's Section 61 Findings, pursuant to the Massachusetts Environmental Policy Act, "If federal funding is not available to complete the sound insulation of homes newly included within the 65 dB DNL as a result of the implementation of the Airside Project, the Authority commits to providing the funding necessary to complete the sound insulation of those homes." Refer to Section 4.1.3 and Appendix B of this Final EIS.

Code	Topic 1	Topic 2	Comment	Response
15.34	Alternatives	Alternative analysis	Although the SDEIR/FEIR evaluated an additional long-term passenger scenario - the 37.5 M High Regional Jet (RJ) Fleet - many of the tables documenting the impacts of the several scenarios do not include the new scenario, being limited to the scenarios evaluated in the DEIS/DEIR. Rather, much of the data for the 37.5 M High RJ Fleet have been relegated to the Appendix volume, making a ready comparison of the alternative scenarios rather difficult.	This statement is incorrect. The major findings of the operational and environmental analyses of the new 37.5M High RJ Fleet were included in the main volumes of the Supplemental DEIS/FEIR (Volumes 1 and 2). For the operational analysis refer to Section 4.7, Delay and Runway Use Results for High Regional Jet Scenario. For the noise analysis refer to Section 6.2.7, 37.5M High Regional Jet Fleet. For the air quality analysis refer to Section 6.4.4, Air Quality Results for the 37.5M High RJ Fleet. Consistent with the format followed for the Draft EIS/EIR, additional detail on the 37.5M High RJ Fleet was included in the Technical Appendices.
15.35	Delay	Document Error	In Figure 4.3-3, the chart for Arrive 4 is incorrect (v. the Arrive 4 chart in Figure 4.3-6). It actually is the same as the Depart 4 chart in Figure 4.3-4.	Comment noted. Figure 4.3-4 for Runway 4L/R was inserted by mistake. This does not, however, change the outcome of the analysis. Figure 4.3-3 should have shown the correct use for Arrive 4 as follows: Historic Equivalent Jet Arrival Operations for Runway 4 by Year Year Percent 1984 28.1% 1985 25.9% 1986 31.2% 1987 n/a 1988 24.3% 1989 29.7% 1990 26.9% 1991 30.8% 1992 38.8% 1993 40.3% 1994 31.3% 1995 36.3% 1996 32.1% 1997 31.9% 1998 36.7%
15.36	Delay	Document Error	Figure 4.7-5 does not indicate wind direction, as claimed.	Comment noted. Instead of VFR delay hours by wind direction, Figure 4.7-5 compares the equivalent jet runway use of the Preferred and No Action Alternatives with the PRAS goals.
15.37	Noise	Hill Effect	In Section 5.2.2.2 (page 5-1 2), no mention is made of the FAA-approved adjustment to the noise model to account for the effect of elevated terrain ("hill effect") on sound propagation from the airport (v. 1999 ESPR, page 6-1 6). Massport should clarify whether this adjustment, which expanded the 65dB DNL contour in the Orient Heights area of East Boston, also was included in the noise modeling for the Airside Improvements Planning Project.	The FAA approved the use of the hill effect adjustment in Orient Heights in May 2000. Because this approval was limited to a relatively small geographic area and because essentially all of the noise analyses and population counts for the EIS had already been completed well before the approval date, no attempt was made to redo any of these analyses for the EIS. For this reason, the hill effect adjustment is only reflected in the 1999 ESPR analysis which is included in this Final EIS for additional historic context. The purpose of the hill effect adjustment is to correct for excess ground attenuation that occurs when an observer is relatively high above the airfield looking down at aircraft on the runway. No other area besides Orient Heights experiences such propagation conditions.

Letter 16

BOSTON
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June 6, 2001

John C. Silva
Manager, Environmental Programs
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Dear Mr. Silva:

The Boston Transportation Department (BTD) has reviewed the environmental document listed above and hereby provides for your review the following comments.

BTD agrees that there is no quick solution to the congestion problems at Logan and at other airports across the country. However, we believe the Logan Airside Improve Program (LAIP) will not only fail to solve Logan's current and future airport problems, it will actually exacerbate the Boston area's environmental impacts. 16.1

Our comments on the Draft Environmental Impact Statement (DEIS) are as follows:

- **<u>Peak Period Pricing</u> (Page 1-5, Paragraph 2, second to last sentence)**

The document states that Peak Period Pricing will not address delays caused by northwest winds. We strongly disagree. While Peak Period Pricing will not eliminate delays under northwest winds; it will certainly improve aircraft traffic flow at Logan over the current non-controlled operational environment. 16.2

- **<u>Taxiway Modeling</u> (Page 1-34, Paragraph 2, third sentence)** 16.3

In this section, it states that taxiway modeling was not performed for the 1998 analysis. It appears inconsistent when 1998 statistics are used for the greater portion of the study to augment Massport's argument for the construction of Runway 14/32, while simultaneously using old data to justify the proposed Taxiway Improvements. BTD supports three of the four proposed taxiway improvements mentioned in the DEIS. However, we are totally opposed to the Centerfield Taxiway (CFT). It is our opinion that the delay benefits associated with the CFT mentioned in the DEIS are far too optimistic and the environmental impacts understated. ***Our primary opposition to the CFT focuses primarily on safety, as well as noise and air quality impacts. In our view, the problems associated with the CFT are as follows:***

1) The CFT will result in three times as many aircraft on the field with their engines running than is currently possible. Most of these operations will be for departures on Runway 22R or 22L. The main problem is the location of the Bayswater Street neighborhood in relationship to the northern section of the CFT, which is separated by only 1,800 feet of water. 16.4

2) Currently, under peak periods and southerly wind conditions, large aircraft will arrive on Runway 22L and small aircraft will arrive on 22R. The main departure runway will be 22R with heavy aircraft using 22L due to its added length. Aircraft gain access to 22R/L via November Taxiway. The combination of arrivals, departures and taxiing aircraft presents this neighborhood with extremely high noise levels and severe air quality impacts. During hot, humid and windy days life in this neighborhood is unlivable. Separated by only 1,800 feet from Logan Airport, Bayswater residents suffer intense noise and fumes from all of three operations mentioned above. 16.5

3) The noise impacts in this neighborhood are so intense, Massport's own Noise Rules actually limit the number of aircraft that are allowed to use November Taxiway simultaneously. This ruling was devised to place some sort of control on the noise and air quality impacts that infect this neighborhood. It must be understood that under the above conditions, the

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impacts are greater in the Bayswater Street neighborhood than any other neighborhood around Logan. The impacts areas follows:

- Low frequency noise rumble from departing aircraft on 22R and 22L;
- High frequency noise from aircraft taxing on November Taxiway to Runway 22R or 22L for departure;
- High and low frequency noise from arrivals on 22L; and,
- Low frequency noise from reverse thrust from arrivals on 22L.

All this impact is inflicted on one neighborhood and continues throughout the day and night, seriously affecting the overall quality of life in this totally residential area.

BTD objects to Massport's claim that the CFT will improve air quality and noise impacts within the Bayswater Street Neighborhood. While we understand the challenges Massport must face in trying to accommodate growth in commercial aviation, we cannot accept their claim that 30 to 45 aircraft on the airfield at one time with their engines running actually has less of an impact than the current allowance of 15 to 20 aircraft.

The proposed CFT is not a new concept. Approximately ten years ago, Massport presented this exact plan to MEPA. The response was so intense that Massport withdrew its original idea and actually re-submitted a new design that included only the southern portion of the CFT (running from Runway 15R to the southern edge of Logan). Eventually, Massport withdrew the idea based on community opposition. If this taxiway improves environmental issues in Orient Heights, why then does Massport have a noise rule limiting the number of aircraft on November Taxiway, which runs parallel to the proposed CFT? ***Also, if the CFT was so environmentally harmful seven or eight years ago, what has it all of a sudden become so acceptable?***

Under Section 176(c) of the Federal Clean Air Act, 42 U.S.C. ss7506(c) (1), the FAA is prohibited from engaging in, supporting in anyway, or providing financial assistance for, licensing or permitting, or approving any activity that does not conform to a state implementation plan (SIP). ***We find it regrettable that Massport could ask for such a project in light of the most recent air quality analysis which depicts a rise in both carbon monoxide (CO) and oxides of nitrogen (NOx) within the environs of Logan Airport.*** 16.6

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- **<u>Terminal Congestion</u> (Page 3-30, Paragraph 3)**

Within this paragraph it clearly states how the CFT will ease congestion at Terminal B caused when aircraft are pushed back from Terminal B onto taxiway Alpha (A). As we stated in the DEIR, the length of time it takes for an aircraft to be pushed back and proceed to taxi is under one minute. Furthermore, all a ground controller must do is direct the taxiing aircraft to pass the gate prior to issuing the pushback instructions to the departing aircraft, and there is <u>no</u> conflict. 16.7

BTD also requests clarification on an additional issue pertaining to congestion at Terminal B. If a problem exists at Terminal B near Alpha Taxiway, why is Massport proposing to expand Terminal B by constructing a new Federal Inspection Station and expanding Pier A? Both projects draw Terminal B closer to Taxiway Alpha further exacerbating the problem. ***It is extremely difficult to comprehend how Massport can claim there exists a serious problem with the operations of Terminal B, then propose to expand Terminal B, which will clearly exacerbate the problem and increase taxiing congestion.*** 16.8

- **<u>Congestion Points</u> (Page 3-30, final paragraph)**

We strongly object to Massport statement that the CFT will move congestion points away from residential areas. The areas in question are the Court Road section of Winthrop, Bayswater Street and Constitution Beach. The construction of the CFT will actually result in a substantial increase towards the number of aircraft taxiing to either 22R or 22L for departure. With construction of the CFT during peak periods, there could be anywhere from 15 to 20 additional aircraft taxiing for departure off Runways 22R and/or 22L. Currently the strong stench caused by 15 aircraft waiting for departure is far more than any community should be asked to tolerate. To expect these residents to endure a doubling or maybe even a tripling of the tremendous noise and air quality impacts over what they currently experience is irresponsible. 16.9

Finally, in response to the construction of the CFT, we believe it is imperative to mention the issue of safety. According to the FAA, in 2000 there were 1,291 surface incidents at our nations' airports, trying to locate more airplanes into small area is a recipe for disaster. The CFT will be

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placed between Runways 22L/4R and 22R/4L. The centerline distance between the two runways is only 1,500 feet. Problems related to placement of this taxiway are as follows:

1) **Ground Incursions:**
Ground incursions have become one the most important safety issues at most airports across the country. Increasing the number of aircraft taxiing throughout Logan Airport with its tight and complex taxiway system by over 50% will only exacerbate the problem. Logan is too small and confined to increase the number of aircraft movements to this level without increasing the potential for a ground incursion to take place, especially during low visibility weather situations. 16.10

2) **Pilot Confusion:**
The location of the CFT could present a serious problem on the approach to 22L or 22R for pilots not familiar with Logan. A pilot could easily mistake the CFT for either Runway 22L or 22R. An event such as this could result in a catastrophic event. Simple mistakes such as this have occurred at Logan before. For example, one airline pilot was cleared to land on Runway 22L and proceeded to land on Runway 22R. On more than one occasion, a pilot in a small aircraft landed on a taxiway rather than the assigned runway. The CFT is simply too close to 22L and 22R to guarantee a safe operational environment. 16.11

3) **Wind Vortex:**
The longer wing spans of today's modern large jet transports produce a tremendous amount of lift and create a severe amount of turbulence spinning away from their wing tips. This provides a serious concern to commuter and smaller general aviation type aircraft that will use the CFT. Due to the close proximity of large aircraft operations on Runway 22L and Runway 22R to aircraft taxiing on the CFT, the turbulence created on both sides of the CFT could present a stability problem for smaller aircraft and could result in an aircraft actually being flipped over. [Note: On page 3-28, we believe there was a minor error. In the last paragraph, and last line. Instead of Runway 4R, we believe it should read 4L.] 16.12

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- **Reduced Landing Minimums for Runways 15R, 27, 22L and 33L (Page 3-35)**

The City of Boston presented the original request for the installation of a Stage 3 landing system on Runway 33L at Logan Airport in the mid eighties. The reason for this request was based on two incidents that occurred while Runway 4R was in use during poor weather conditions, one in Dorchester and the other in Mattapan. In our opinion, it made sense to have more than one runway available during bad weather, especially if a new approach was to be flown over water. Our request was appropriate in two ways, not only would this help the issue of noise abatement; it would also provide an extra margin of safety for people in certain neighborhoods. The subject of lowering the landing minimums on Runway 27 is primarily a Town of Winthrop issue, and we will leave it up to Winthrop residents and their town officials to comment on this matter.

However, the City of Boston is totally opposed to lowering the landing minimums on 22L and 15R. As we have stated on several occasions, there are many residents living close to the approach end of these two runways. **Our concerns factor in on two major issues, noise and safety.** We disagree with Massport's assertion that lowering the landing minimums will improve noise abatement for two basic reasons: 16.13

First, aircraft create more noise during overcast weather conditions. Under overcast conditions the low cloud cover acts as an amplifier and results in the aircraft event making more noise in two ways, it causes a higher peak noise level and it also causes the noise event to last much longer adding to the overall annoyance factor.

Second, both Runway 15R and 22L have residential areas close to their final approach area. In fact, on the approach to 22L, there are approximately 30 homes located in the Runway Protection Zone (RPZ). Those familiar with airport operations clearly understand that under optimum operating conditions, the RPZ should be clear of any structures. The fact that the structures located within the RPZ on 22L **are homes,** does not factor in very well on the argument of safety. According to the FAA, 75% of all aircraft accidents occur within the Runway Protection Zone. 16.14

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Once again, it is important to reiterate that Logan airport's location in an urban residential neighborhood affords little margin of error. The City of Boston is extremely concerned about the well being of the residents living close to the approach end of Runways 15R and 22L. We strongly urge FAA and Massport to re-think their attempt to lower the landing minimums on 15R and 22L, as we believe this presents a serious quality of life, and more importantly, a critical public safety issue. Although the homes located within the RPZ on 22L were built prior to development of RPZ criteria, the FAA should be cognizant of their location in relationship to both noise and safety issues. [A final editorial note, on Page 4-28, Figure 4.3-3, the dotted line appears to be placed in the wrong place. We believe it should have been placed at the point reflecting a Goal of 21.1% rather than area as shown.]

- **<u>Marketing</u> (Page 2-52, First paragraph)**

We find it inconsistent that Massport continually states how they strive to convince airlines to expand to Manchester, Providence or Worcester Airports, while on the page listed above, it clearly mentions how Massport engages in marketing activities to foster air service development at Logan. We expect this type of activity from Massport, and, as we all know, this practice has gone on for many years and will continue for years to come. Massport should be more truthful about their involvement in this type of activity and stop misleading the public about its limited work to expand operations at regional airports. 16.15

LOGAN AIRSIDE IMPROVEMENTS PLANNING PROJECT, VOLUME 2 COMMENTS.

RESPONSE TO COMMENTS

Runway 14/32 (Code 37.9, last sentence)

We strongly disagree with this portion of the response section, which states: "When Runway 14/32 is in operation, it would reduce the noise exposure over populated communities."

The greater percentage of time when Runway 14/32 will be used for arrivals, Runway 27 will be the preferred runway selected by the FAA for departures. 16.16

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Therefore, how can Massport make this claim when the noise impacts will dramatically increase in South Boston, Mattapan, Roxbury, South End, Jamaica Plain, Hyde Park, Roslindale, West Roxbury, Back Bay, Beacon Hill, the Eagle Hill section of East Boston and parts of Dorchester? Combined these communities would represent over 85% of Boston's total population.

Centerfield Taxiway (Code 37.7, entire comment)

Comments stating that noise and air quality impacts will improve with the Centerfield Taxiway are completely false. Common sense tells you that 30 to 35 jet aircraft taxiing on the field yield far more noise and air pollution than the current 10 to 15 jet powered aircraft do.

A clever strategy Massport uses to confuse the reader and distort the data regarding the benefits of the CFT, is the inclusion of Runway 22L into the menu of uses the CFT would improve upon. The fact is Runway 22L is used very seldom for departures and mentioning how the CFT will improve ground movements at Logan by expediting 22L departures is a mute point. Also, air traffic controllers will not hesitate to use the CFT for aircraft using 22R for departure. The net result will be those pilots requesting 22L for departure will then be delayed regardless whether they taxi on November or the CFT. The only difference the CFT will make is that there will be more aircraft on the airfield with their engines running spewing more noise and air pollution into the Orient Heights section of East Boston and the Court Road section of Winthrop. 16.17

Centerfield Taxiway (Code 37.24, second sentence)

To state the CFT will reduce aircraft idling on taxiway Romeo and Yankee is incorrect. Both taxiways are high-speed turnoffs and are designed for quick and efficient removal of arrival traffic from the active runway configuration. As far as crossing Runway 4L is concerned, Taxiway R and Y are used for 4R arrivals. An expedient crossing of Runway 4L should be available under these conditions a greater majority of the time. The only instance a pilot crossing 4L will be issued a hold short instruction will be if there was a simultaneous arrival on 4L. This is not a valid reason to support construction of the CFT. 16.18

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Centerfield Taxiway (Code 37.63, entire response)

Response to our comments in this section are extremely misleading and prove that Massport's data completely fails to justify their request for the CFT. Our reasons for making this strong statement are as follows:

1) Massport claims in the FEIR, "Aircraft crossing at Runway 33R are forced to queue on the runway to cross Runway 4L at this single crossing point and then use Taxiway November (along with any aircraft that exited via Taxiway Romeo or later) to get to the terminals". To begin with, aircraft do not queue on 33R. Aircraft crossing 4L under this scenario, (departures on 9 and arrivals on 4R), are usually not a problem since the main runway for arrivals is 4R. Therefore, the light activity on 4L allows the pilot to cross 4L quickly and safely. Should there be an arrival on 4L subsequent to a 4R arrival, it would be a small aircraft, which could taxi off 4L at Taxiway T, Q, F or even at Runway 15R. 16.19

2) Massport's claim concerning noise benefits associated with the Runway 4L crossing at 33R are also misleading. As stated above, aircraft do not queue on 33R. Also, the crossing point for 4L at 33R is beyond Constitution Beach and has not presented a consistent noise problem for either Orient Heights residents or visitors to Constitution Beach under the 9 departure 4R arrival scenario. 16.20

3) Under the 9 departure 4R arrival configuration, the CFT will exacerbate taxi delays and have a negative impact on air quality over the current operation. An aircraft taxiing on the CFT to Terminal B will have to stop and hold short at taxiways Q, F, C, A, K and Runways 15R and 4L. An aircraft taxiing to the west side of Terminal B or Terminal A will have to stop and hold short on all the above intersections plus Taxiway E. In the final analysis, not only will this be a slower operation, it will also increase air and noise pollution since the pilot will have to provide a high power setting in order to break inertia subsequent to stopping at each intersection. 16.21

Centerfield Taxiway (Code 37.64)

Within the response in this section, there are merits for the benefits associated with the CFT is given to a FAA approved computer model. BTD finds it difficult to analyze the computer model. We actually witnessed the model in action and have serious doubts about its integrity. The 40 to 50

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aircraft we mentioned in our previous comments referred to a worse case, high fleet scenario. We want to be clear on this point -- Massport confuses the reader by inferring that the CFT would only be used under a 22R/22L departure 27 arrival scenario for aircraft taxiing to 22L for departure. The FAA will ABSOLUTELY use the CFT for aircraft taxiing to 22R for departure.

Centerfield Taxiway (Code 37.65)

Within this section, Massport states " the principal effect of the CFT is to reduce the number of aircraft waiting on November Taxiway, thus benefiting East Boston." Throughout this entire process, BTD has asked the FAA if they could limit the number aircraft that controllers allow on November Taxiway if the CFT were built. On several occasions, they stated that they will not place a limit on the number of aircraft taxiing on November Taxiway. In fact, the FAA continuously violates Massport's own noise abatement regulation that places a limit on the number of aircraft that should be allowed on November taxiway beyond Runway 15R to the approach end of 22R. ***Therefore, how can Massport claim that the CFT will limit the number of aircraft on November Taxiway when they cannot enforce their current regulations pertaining to this very issue and the FAA has no intention of limiting the number of aircraft on November Taxiway should the CFT be built?***

16.22

16.23

Centerfield Taxiway (Code 37.66)

Massport's claim that the CFT will improve delays in the southwest corner of the airport simply makes no sense. Although it is true that jet arrivals exit Runway 22L at Taxiway P or E, any conflict with jet arrivals on Runway 27 is extremely rare. The reason for this is two-fold:

16.24

1) When Runway 22R is used for departures Runway 27 is the primary runway for jet arrivals while commuter and general aviation aircraft will land on Runway 22L. Both commuter and general aviation aircraft will never require the length of runway that would result in a taxiway or runway conflict with Runway 27 jet arrivals.

2) If the winds are strong out of the south, the tower will use Runway 22R for departures and direct all arrivals to Runway 22L. Although this is not a high capacity configuration no taxiway or

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runway conflict will occur under this scenario as well since smaller aircraft will exit 22L at taxiway J, F or C.

BTD finds it rather amusing how Massport takes credit for moving the aircraft further away from the community under the Runway 9 departure and Runway 4R arrival scenario by placing aircraft on the CFT rather than November Taxiway as they taxi to the gate. While simultaneously stating that moving the aircraft closer to the community when 22R is used for departures and 27 is used for arrivals will not move impacts significantly closer to the communities. 16.25

Centerfield Taxiway (Code 37.67)

Massport's response to our comments on how the CFT will help wing-tip clearance conflicts on Taxiways Alpha (Inner) and Kilo (Outer) fails to address our main concern. Will delays and wing-tip conflicts continue to occur on Alpha and Kilo near Terminals B and C if the CFT is constructed? We can only glean from Massport's response that the answer is yes. The CFT will not eliminate conflicts in this area. Also, the unnecessary runway crossings will still occur whether or not the CFT is built. It must be remembered that the CFT would be built parallel to Runways 22R/4L and the runway crossing points remain exactly the same. 16.26

Centerfield Taxiway (Code 37.68)

Contrary to Massport's response, the City of Boston never claimed that there will be an increase in the number of ground movements at Logan with the construction of the CFT. What we were saying was that with the anticipated growth in airline activity, the CFT could amplify the ground incursion problem by providing additional intersections on the airfield surface. From a purely operational perspective, if Logan's surface area were more expansive the concept of a CFT would have a better chance of working. However, with Logan's small surface area the CFT will present a confusing matrix for pilots to follow especially during poor visibility conditions. In our opinion, the CFT will increase the potential for ground incursions to occur at Logan.

Centerfield Taxiway (Code 37.69)

The City of Boston's concern about the potential danger of a pilot mistaking the CFT for either Runway 22R or 22L is based on actual events not just mere conjecture. Several years ago a pilot for a major airline landed on

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Runway 22R subsequent to being cleared to land on Runway 22L. Also, a general aviation pilot once landed his small aircraft on Charlie Taxiway instead of Runway 33L. The CFT will greatly enhance the potential for conflicts like those mentioned above to occur.

Centerfield Taxiway (Code 37.70 & 37.71)

The benefits of the CFT regarding Runway 22L departures are overstated and misleading for two obvious reasons: 16.27

First, the number of 22L departures is so low it is not worth mentioning.

Second, we can state with utmost certainty, that the FAA will use the CFT for aircraft using 22R for departures. When this occurs, aircraft taxiing to 22L will once again be delayed only it will be on the CFT rather than November Taxiway, sharply decreasing the level of benefits mentioned in Massport's comments. Residents in the Orient Heights Section of East Boston and the Court Road Section of Winthrop will encounter a dramatic increase in both noise and air pollution.

Regional Transportation (Code 37.115) 16.28

While the creation of a New England Port Authority (NEPA) requires legislation from the New England states; we disagree with Massport's assertion that it is a matter for the United States Congress.

Runway 14/32

In closing, there are a number of facts that prove that Runway 14/32 is unwarranted and unjustified.

1) ***Runway 14/32 was planned and designed in the early 1970's when aviation was still controlled by federal regulation laws and a large percentage of our nations airline fleet mix was of the propeller variety.*** Since then much has changed both in terms of government control, airline operations and aviation technology. De-regulation in 1978, changed forever the way airlines plan their operations, marketing and fleet structure. Aviation Technology has allowed larger and quieter aircraft to satisfy airline growth potential and remain

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within federal noise limits. However, this rapid and ever changing growth in air travel has its drawbacks.

2) Although airlines for the most part have complied with federal noise standards, the dramatic increase in the level of operations has compromised the noise abatement gains through technology. If you decrease aircraft noise levels at the source and then triple the number of operations, what have you gained? Residents impacted by Logan Airport operations will tell that the constant droning of noise from morning till night is worse than it was twenty years ago when aircraft emitted higher noise levels. The main reason for this opinion is simply based on the fact that there were far less operations than you have today. Therefore, you had more moments of piece throughout the day, and more importantly, during the sensitive nighttime hours when people are attempting to sleep. 16.29

3) More recently, the change in size of Regional Aircraft has presented a new challenge for airport planners. As stated above, Runway 14/32 was designed during a period when a significant percentage of aircraft were prop driven. These aircraft were smaller and slower than jet transports. The purpose of Runway 14/32 was to remove these slower and smaller aircraft out of the stream of jet transport aircraft on approach to Logan and allow them to land on a runway designed specifically for this purpose. The goal was to improve efficiency under northwest wind conditions. However, the ongoing change from prop driven to jet powered regional aircraft has changed all that. Aircraft such as the Canadian Regional Jet (CRJ), Embraer 135/145 will not use Runway 32 for arrival during wet weather conditions. The CRJ will not use Runway 32 for arrival at all. ***Therefore, the critical question now becomes, is Runway 14/32 worth the investment? BTD believes it is not. In our opinion, Runway 14/32 will not accomplish what Massport has been saying it will for the following reasons:*** 16.30

- Runway 14/32 was designed almost thirty years ago. As we explained above, changes in the airline industry have rendered it useless in today's airport environment.
- Philadelphia International Airport recently constructed a new 5,000-foot runway similar in many respects to Logan's Runway 14/32. Runway 8/26 was a 221 million dollar project designed to reduce delays by offering a separate runway for commuter aircraft. It has not worked out that way. Currently, Runway 8/26 16.31

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experiences only a dozen flights per day out of the airport, less than 1 percent of the more than 1,300 daily operations.

- Atlanta Hartsfield International Airport recently broke ground for a new 6,000-foot runway. Subsequent to the dedication for the project, plans were announced to expand this same runway to 9,000 feet. According to Atlanta officials, the original length of 6,000 feet would result in minimum benefits in the hope of reducing delays since aircraft with a capacity over 50 seats may refuse to use it. By extending the runway to 9,000 feet, most aircraft in the world fleet can land on it in various weather conditions. 16.32

In our opinion, the important question regarding Runway 14/32 now is, will Massport plan to expand 14/32 should it fail to live up to expectations? Atlanta officials learned from the Philadelphia experience, will Logan? It may appear presumptuous to think that Massport will plan to expand 14/32 at some future date. However, the points listed above lead us to think they may have no other alternative should 14/32 fail to accomplish the goals set for it 30 years ago. 16.33

An issue that has been overlooked regarding Runway 14/32 is its impact on the City of Boston's plans for development. As you know, the City has worked with local residents, state officials and the private sector on the Fan Pier Development Project in South Boston. This mega-project is one of the largest in the city's history and Runway 14/32 will have a negative effect on its residential and professional tenants. A tremendous amount of work, time and money has been spent on the plans for Fan Pier and one of the most important components of the project was a height reduction program to satisfy FAA requirements specified under FAR Part 77. It has been difficult, but in order to save the project from ruin representatives from the FAA, Fan Pier Development Team and the City of Boston worked hard to ensure the project will be safe and not conflict with FAA height standards. Mayor Menino hired consultants to help city officials to address the height restraints with the FAA. The net result is a project that works for everyone involved. However, I can assure you there remains a substantial amount of uncertainty as to the success of Fan Pier because of Runway 14/32. 16.34

Finally, the cost of the Airside Improvement Program will exceed $76 million dollars. We believe Massport should invest this money into upgrading airport infrastructure at Hanscom and Worcester Airports. Massport claims to support regionalization. If this is true they should follow

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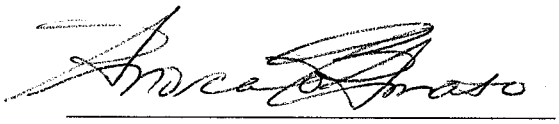
up on their commitment and use this money to modernize the two other airports under their jurisdiction and embark on a substantial marketing program to convince the airlines to serve them and the traveling public to use them. The only way Hanscom and Worcester can experience growth and truly relieve Logan congestion, is for Massport to work with the FAA to improve and expand their infrastructure, aircraft support facilities, terminal buildings and air traffic control systems. Although this would only be a small step towards a comprehensive regional intermodal transportation plan, it would truly be a step in the right direction. 16.35

Residents of Boston and the greater metropolitan area have endured the impacts from Logan Airport long enough. It is now time for Massport and the FAA to look for ways to improve their environment, not make it worse.

Sincerely,



Andrea d'Amato,
Commissioner of Transportation
Chief of Environmental Services

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Code	Topic 1	Topic 2	Comment	Response
16.1	Runway 14/32	Impacts	the Logan Airside Improve Program (LAIP) will not only fail to solve Logan's current and future airport problems, it will actually exacerbate the Boston area's environmental impacts.	Based on simulation modeling, Logan Airport experienced 120,000 hours of runway-related delays in 1998. If no actions are taken, runway-related delays could grow as high as 333,000 under a 37.5M High Fleet scenario. The Preferred Alternative produces immediate and long-term benefits by lowering runway delays by 38,000 hours under 1998 conditions, and by as much as 94,000 hours in the future 37.5M High Fleet scenario. The sooner airside efficiencies are implemented, the more benefits will accrue over time. The EIS clearly demonstrates that compared to the No Action Alternative, the Preferred Alternative produces changes in air quality that are either benficial or imperceptible and reduces noise exposure for the most highly impacted populations in the 75dB and 70dB DNL.
16.2	Peak Period Pricing	Implementation	While Peak Period Pricing will not eliminate delays under northwest winds; it will certainly improve aircraft traffic flow at Logan over the current non-controlled operational environment.	This EIS analysis clearly shows that Peak Period Pricing is an effective delay reduction tool when airline overscheduling occurs (i.e., in the High fleet scenarios). However, Peak Period Pricing is not a substitute for Runway 14/32 in that these two options deal with very different sources of delay. Peak Period Pricing or an alternative demand management mechanism addresses delays that occur if airlines schedules exceed Logan's normal airfield capacity. In contrast, Runway 14/32 prevents delays caused by the major drop in Logan's airfield capacity that now occurs during northwest wind conditions. The Airside EIS analysis shows that Runway 14/32 leads to a substantial reduction in delays, even with peak period pricing in effect. Since Logan does not currently suffer from airline overscheduling, Massport has elected to not include Peak Period Pricing in the Preferred Alternative for this EIS. In its Section 61 Findings, pursuant to the Massachusetts Environmental Policy Act, Massport committed to initiating the rule-making process to implement an enforceable peak period pricing program, or an alternative demand management program with comparable effectiveness, for Logan Airport. The objective of this program will be to avoid or reduce delays associated with overscheduling of Logan Airport's available capacity in good weather conditions. The goal is to have a demand management program in place before overscheduling conditions occur at Logan Airport. The FAA acknowledges that Logan Airport is one of the nation's most delayed airports and that Massport has committed to and will propose to implement a demand management program to reduce overscheduling delays. The FAA expects that any such program that is proposed for implementation will be consistent with applicable Federal law. The FAA is working with the U.S. DOT to establish national guidelines for demand management programs at U.S. airports. As part of this national effort, Logan has been selected as one of three airports to serve as a case study for U.S. airport demand management strategies.
16.3	Delay	Taxiway	Taxiway Modeling (Page 1-34, Paragraph 2, third sentence)...In this section, it states that taxiway modeling was not performed for the 1998 analysis. It appears inconsistent when 1998 statistics are used for the greater portion of the study to augment Massport's argument for the construction of Runway 14/32, while simultaneously using old data to justify the proposed Taxiway Improvements.	The various taxiway improvements will increase airfield efficiency and decrease taxiing delays by simplifying the existing taxiway system. The Draft EIS demonstrated that the taxiway improvements produced a fairly consistent reduction in taxiway delay hours for the five future fleets analyzed. As shown in Table 4.5-6 of the Draft EIS, the proposed taxiway improvements reduced taxiway delays by 15,000 to 22,000 annual hours. Based on the consistency of these results, it was decided that the modeling exercise would have produced similar results for 1998 conditions and that the 1998 taxiway delay reduction could be reasonably estimated from prior model runs. In addition, the taxiway improvements would also provide important safety benefits that cannot be quantified by the taxiway modeling.
16.4	Centerfield Taxiway	Impacts	The CFT will result in three times as many aircraft on the field with their engines running than is currently possible. Most of these operations will be for departures on Runway 22R or 22L.	The Centerfield Taxiway would not change the number of aircraft scheduled to depart Logan Airport, but would improve ground movement efficiency and safety, and would reduce taxiing delays. When using Runways 22L/R for departures, the Centerfield Taxiway would provide an alternate taxi route for Runway 22L departures to bypass the queue for Runway 22R, thereby

Code	Topic 1	Topic 2	Comment	Response
				reducing taxiway congestion. Under existing conditions, aircraft needing to depart on Runway 22L (typically heavy jets, such as 747s with long takeoff distance requirements) must wait in the queue on Taxiway November with aircraft departing on Runway 22R. With the Centerfield Taxiway, aircraft departing on Runway 22L could depart quickly after reaching the runway end, the number of aircraft queuing on Taxiway November should decline, and larger aircraft departing on 22L would use Centerfield Taxiway rather than Taxiway November. The analysis of ground noise and air quality that was presented in the Draft EIS/EIR shows that the taxiway improvements would produce very small, and sometimes beneficial, changes in ground noise or air pollution concentrations at the receptor sites most impacted by the Centerfield Taxiway, i.e., those in the Bayswater and Constitution Beach areas of East Boston and Loring/Court Road area of Winthrop. The ground noise and air quality impacts of the Centerfield Taxiway at these sites are summarized in Section 3.10 of this Final EIS. As a result of public concerns about impacts from the operation of the Centerfield Taxiway, FAA is proposing to complete a study to evaluate operational procedures to further reduce Centerfield Taxiway impacts while preserving the operational and environmental benefits shown in the EIS. This study will be coordinated with affected parties and will address taxiing operations in the northern portion of the airfield, both on the existing Taxiway November and on the proposed Centerfield Taxiway. Section 4.2 of this Final EIS discusses this study in more detail. If the FAA decides to conduct such a study, then no decision will be made on the Centerfield Taxiway until the study is completed.
16.5	Centerfield Taxiway	Impacts	Currently, under peak periods and southerly wind conditions, large aircraft will arrive on Runway 22L and small aircraft will arrive on 22R. The main departure runway will be 22R with heavy aircraft using 22L due to its added length. Separated by only 1,800 feet from Logan Airport, Bayswater residents suffer intense noise and fumes from all of three operations mentioned above....the impacts are greater in the Bayswater Street neighborhood than any other neighborhood around Logan. The impacts areas follows: Low frequency noise rumble from departing aircraft on 22R and 22L; High frequency noise from aircraft taxing on November Taxiway to Runway 22R or 22L for departure; High and low frequency noise from arrivals on 22L; and, Low frequency noise from reverse thrust from arrivals on 22L.	Refer to response to Comment 16.4. Massport's noise rules do not impose a limit on the use of Taxiway November. FAA Order 7040.1A states that it is the policy of Boston Air Traffic Control Tower (ATCT) to be a good neighbor and to meet operational objectives and responsibilities while mitigating noise whenever circumstances permit. The specific procedure calls for the FAA to limit turbojets as follows: "No more than five turbojets, including one in position, shall be cleared beyond Runway 15L. Only one turbojet is allowed to be held on November Taxiway between Runways 22R and 22L." The limit applies to aircraft north of Runway 15L/33R, the 2,600 foot long runway. There is no limit imposed under this policy on the number of aircraft between Runway 15R/33L and Runway 15L/33R. The Centerfield Taxiway will not change the number of aircraft scheduled to depart Logan Airport, and will not increase the queuing in the northern portion of the airfield. The taxiway improvements are designed to improve ground movement efficiency and safety, and to reduce taxiing delays; thereby reducing associated noise and emissions. When using Runways 22L/R for departures, the Centerfield Taxiway would provide an alternate taxi route for Runway 22L departures to bypass the queue for Runway 22R, thereby reducing taxiway congestion and associated noise and emissions. Under existing conditions, aircraft needing to depart on Runway 22L (typically heavy jets, such as 747s with long takeoff distance requirements) must wait in the queue on Taxiway November with aircraft departing on Runway 22R. With the Centerfield Taxiway, aircraft departing on Runway 22L could depart quickly after reaching the runway end, and the number of aircraft queuing on Taxiway November should decline. Also, the aircraft on Taxiway November should be smaller, implying lower noise and air quality emissions. With the addition of Runway 14/32, use of Runways 22R and 22L for departures would decline further reducing aircraft movements in the northern portion of the airfield. Refer to Section 3.9 of the Final EIS for more information on how Centerfield Taxiway will be used and Section 3.10 for a discussion of the

Code	Topic 1	Topic 2	Comment	Response
				impacts of the Centerfield Taxiway on the communities that surround the northern end of the airfield. Given community concerns about the Centerfield Taxiway and Taxiway November, FAA is committing to undertake an additional study to evaluate operational procedures to further reduce Centerfield Taxiway impacts and to address impacts from Taxiway November. The study will be completed in two phases, and will focus on the area north of Runway 15R/33L. The first phase will focus on the existing taxiway network and will consider measures designed to respond to the community concerns regarding aircraft waiting on Taxiway November to depart on Runways 22R and 22L. The second phase will evaluate specific procedures designed for implementation once the Centerfield Taxiway is constructed while preserving the operational and other environmental benefits shown in the EIS. See Section 4.2.2 of this Final EIS for more information on the taxiway study.
16.6	Air Quality	SIP	Under Section 176(c) of the Federal Clean Air Act, 42 U.S.C. ss7506(c) (1), the FAA is prohibited from engaging in, supporting in anyway, or providing financial assistance for, licensing or permitting, or approving any activity that does not conform to a state implementation plan (SIP). We find it regrettable that Massport could ask for such a project in light of the most recent air quality analysis which depicts a rise in both carbon monoxide (CO) and oxides of nitrogen (NOx) within the environs of Logan Airport.	Conformity requirements under Section 176 of the Federal Clean Air Act pertain to federal review of projects. The Airside Project will result in a slight reduction of pollutants. Therefore, the Airside Project is assumed to comply with the SIP and air quality conformity is not required. The U.S. EPA, Massachusetts DEP and EOEA work together with other state and local agencies to develop, implement and monitor the State Implementation Plan (SIP). This plan is intended to serve as a strategy for managing air quality conditions and the air resources of the Commonwealth, including the Boston area. Under the Federal Clean Air Act (CAA), federally-approved or funded projects must be shown to be in conformance, or comply, with the SIP. In this way, individual projects or communities are safeguarded from unacceptable impacts and the goals of the SIP are not compromised.
16.7	Centerfield Taxiway	Pushbacks	...it clearly states how the CFT will ease congestion at Terminal B caused when aircraft are pushed back from Terminal B onto taxiway Alpha (A)...the length of time it takes for an aircraft to be pushed back and proceed to taxi is under one minute. Furthermore, all a ground controller must do is direct the taxiing aircraft to pass the gate prior to issuing the pushback instructions to the departing aircraft, and there is no conflict.	During heavy demand conditions, there is a continuous flow of inbound and outbound aircraft which air traffic controllers must coordinate. A pushback interfering with Taxiway Alpha can easily result in delay that propagates to many other aircraft.
16.8	Centerfield Taxiway	Impacts	If a problem exists at Terminal B near Alpha Taxiway, why is Massport proposing to expand Terminal B by constructing a new Federal Inspection Station and expanding Pier A? Both projects draw Terminal B closer to Taxiway Alpha further exacerbating the problem.	The proposed improvements to Terminal B Pier A will not interfere with the existing movement areas of the apron or Taxiway Alpha. The satellite FIS will reduce congestion and inefficient towing of empty aircraft from Terminal E to Terminal B. The centerfield taxiway will allow aircraft to avoid the existing bottleneck which occurs on Taxiways Alpha and Kilo between Terminals B and C.
16.9	Centerfield Taxiway	22L/R Departures	We strongly object to Massport statement that the CFT will move congestion points away from residential areas. The areas in question are the Court Road section of Winthrop, Bayswater Street and Constitution Beach. With construction of the CFT during peak periods, there could be anywhere from 15 to 20 additional aircraft taxiing for departure off Runways 22R and/or 22L.	Refer to response to Comment 16.4. The Centerfield Taxiway will not change the number of aircraft scheduled to depart Logan Airport. During busy periods, the Centerfield Taxiway will allow heavy aircraft departing on Runway 22L to avoid the queue of aircraft waiting on Taxiway November to depart on Runway 22R. It will also enable arriving aircraft which must cross Runway 4L/22R to avoid current crossing queues by taxiing to other crossing points closer to the terminal areas. Moreover, with the addition of Runway 14/32, the use of Runways 22R and 22L for departures would decline significantly and further reduce the impacts to the Court Road section of Winthrop, Bayswater Street and Constitution Beach. The analysis of ground noise and air quality that was presented in the Draft

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				EIS/EIR shows that the taxiway improvements would produce very small, and sometimes beneficial, changes in ground noise or air pollution concentrations at the receptor sites most impacted by the Centerfield Taxiway, i.e., those in the Bayswater and Constitution Beach areas of East Boston and Loring/Court Road area of Winthrop. The ground noise and air quality impacts of the Centerfield Taxiway at these sites are summarized in Section 3.10 of this Final EIS.
16.10	Centerfield Taxiway	Safety	Ground incursions have become one the most important safety issues at most airports across the country. Increasing the number of aircraft taxiing throughout Logan Airport with its tight and complex taxiway system by over 50% will only exacerbate the problem...especially during low visibility weather situations.	The Airside Improvements will not increase the number of aircraft scheduled to use Logan airport. All of the taxiway improvements included in the Preferred Alternative were originally recommended in the Runway Incursion Mitigation Plan prepared in 1993 by a specially-created Technical Advisory Committee consisting of representatives from the FAA Air Traffic Control Tower, the FAA New England Regional Office, the Air Transport Association, the Air Line Pilots Association, Massport, and airlines serving Logan. The Centerfield Taxiway was designed to reduce the potential for incursions by decreasing taxiway congestion, reducing the number of individual runway crossing events, and avoiding wingtip clearance conflicts. In response to public comments on the Supplemental DEIS/FEIR, a review of the use of the Centerfield Taxiway, as well as the other taxiway improvements, was conducted in April 2002 to examine any safety-related issues. Representatives of the FAA, including the Flight Standards Division and Runway Safety Office, performed this review along with Massport personnel. Based upon the FAA airport surface safety specialists' knowledge of the location of recent runway incursions at Logan, the typical locations of runway incursions at other airports, and the planned use of the proposed airport taxiway network, they concluded that no decrease in safety is expected compared to the current operation and confirmed that the taxiway improvements would enhance the safety and efficiency of Logan operations. As a result of the FAA review, Section 3.9 of the Final EIS presents more detailed information on operational procedures for the Centerfield Taxiway.
16.11	Centerfield Taxiway	Safety	The location of the CFT could present a serious problem on the approach to 22L or 22R for pilots not familiar with Logan. A pilot could easily mistake the CFT for either Runway 22L or 22R.	Taxiways do not appear the same as a runway to a pilot and cannot be easily mistaken for a runway. The width, markings, and lighting all distinguish them clearly, as do electronic navaids in most cases. At night and during low-visibility conditions, the type, location, color and intensity of lighting clearly differentiate runways from taxiways. Pilots are professionally trained and study the runway layout of every airport before landing. Parallel taxiways are a common airfield layout. Air carrier pilots must be carefully familiarized with an airport before operating to it. Commercial flights all have two pilots to cross-check each other. Student pilots are prohibited from flying to or from Logan. The FAA has established airport design principles and standards in Advisory Circular 150/5300-13 which, among others, specify minimum separations between runways and taxiways and recommend a parallel taxiway for each runway. The Logan taxiway improvements will comply with all FAA design standards, including the distance from the runway. In fact, the Centerfield Taxiway would the same distance from Runway 4L/22R as Taxiway November, and twice as far from Runway 4R/22L.
16.12	Centerfield Taxiway	Safety	The longer wing spans of today's modern large jet transports produce a tremendous amount of lift and create a severe amount of turbulence spinning away from their wing tips...the turbulence created on both sides of the CFT could present a stability problem for smaller aircraft and could result in an aircraft actually being flipped over.	Wake vortices are produced when the wings are supporting the aircraft's weight, that is before touchdown for arrivals and after liftoff for departures. The vortices are not considered a hazard to aircraft on the ground. Their severity is principally a function of the aircraft weight, not the wing span. When Runways 22L and 22R are in operation, Runway 22R is used almost exclusively for departures, so that the vortices only exist on the southern end of the runway, and Runway 22L is used principally for non-jet arrivals so that the vortices are moderate and occur at the northern end of the runway. Hence, the creation of simultaneous vortices on both sides of the centerfield taxiway is not an issue. Moreover, it should be noted that the centerfield taxiway will be separated from Runway 22R by more distance than the existing Taxiway Kilo (Outer), and it will be twice as far from Runway 22L.

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16.13	Reduced Minimums	Impacts	...the City of Boston is totally opposed to lowering the landing minimums on 22L and 15R. We disagree with Massport's assertion that lowering the landing minimums will improve noise abatement for two basic reasons: First, aircraft create more noise during overcast weather conditions. Under overcast conditions the low cloud cover acts as an amplifier and results in the aircraft event making more noise in two ways, it causes a higher peak noise level and it also causes the noise event to last much longer adding to the overall annoyance factor.	The FAA is responsible for the safe and efficient operation of the national airspace system and is committed to enhancing the safety and efficiency of air travel. The primary purpose of reducing the approach minimums on these runways is to promote safety by providing positive instrument guidance at low altitudes, by allowing aircraft to use runways more aligned with the wind during low visibility conditions, and by reducing the probability of missed approaches. The proposed reduced minimums at Logan Airport would be consistent with recommended practices as established in FAA Order 8260.3B, United States Standards for Terminal Instrument Procedures, and in effect at other comparable airports. Runways proposed for reductions in minimums already have IFR minimums and pilots presently use these runways in poor and wet conditions. Reductions of these minimums to lower ceiling heights and visibility would have an insignificant effect on either aircraft power, flaps settings, or sound propagation.
16.14	Reduced Minimums	Safety	Both Runway 15R and 22L have residential areas close to their final approach area. In fact, on the approach to 22L, there are approximately 30 homes located in the Runway Protection Zone (RPZ). Those familiar with airport operations clearly understand that under optimum operating conditions, the RPZ should be clear of any structures. The fact that the structures located within the RPZ on 22L are homes, does not factor in very well on the argument of safety. According to the FAA, 75% of all aircraft accidents occur within the Runway Protection Zone.	The existing Runway Protection Zones for Runways 15R and 22L depicted in the FAA-approved Airport Layout Plan of Logan will not change with the reduction in approach minimums. The reduced minimums will enhance safety by providing positive instrument guidance to a point closer to touchdown, by allowing arriving flights to use runways more closely aligned with the prevailing wind during low visibility conditions, and by reducing the probability of missed approaches. Reduced minimums do not change the approach path. Rather, they shift the location along the approach path at which a missed approach decision is initiated to a point closer to the airport and away from the communities. For Runways 27 and 22L, the reduced minimums will make the approach procedures flown by pilots more consistent with typical FAA guidelines in effect at most other comparable airports, including airports with dense populations under their flight paths such as New York LaGuardia, Washington National, Philadelphia, Miami, and Los Angeles.
16.15	Regional	Regional Airports	We find it inconsistent that Massport continually states how they strive to convince airlines to expand to Manchester, Providence or Worcester Airports, while on the page listed above (Page 2-52, first paragraph), it clearly mentions how Massport engages in marketing activities to foster air service development at Logan.	As indicated by the title of the subsection in which this sentence appears, "Local Airport Proprietors" (Refer to bottom of page 2-51), this statement refers to airport proprietors in general and not Massport specifically. There is no mention of Massport or Logan in the entire paragraph. Massport does not engage in any marketing activities to attract new domestic air services at Logan Airport, but routinely engages in air service marketing to develop domestic services at Worcester Regional Airport.
16.16	Runway 14/32	Runway Use	The greater percentage of time when Runway 14/32 will be used for arrivals, Runway 27 will be the preferred runway selected by the FAA for departures. Therefore, ...the noise impacts will dramatically increase in South Boston, Mattapan, Roxbury, South End, Jamaica Plain, Hyde Park, Roslindale, West Roxbury, Back Bay, Beacon Hill, the Eagle Hill section of East Boston and parts of Dorchester…	The predicted increase in flights using Runways 27 and 33L for departure that would occur with the construction of Runway 14/32 has generated numerous public comments. While the increased departures to the west and northwest are consistent with the goals of Logan's Preferential Runway Advisory System (PRAS), community representatives have withdrawn their support for the existing PRAS system. With support from FAA, Massport has committed in its Section 61 Findings, pursuant to the Massachusetts Environmental Policy Act, to work with the Community Advisory Committee (CAC) to reassess the PRAS program. In order to prevent a major change in Logan's runway utilization pending this reassessment of PRAS, the FAA in this Final EIS is proposing to restrict Runway 14/32 for use only during northwest or southeast winds of 10 knots or greater. In proposing this restriction, the FAA expects that the principal delay reduction benefits of the runway would be realized and that runway utilization at Logan Airport would remain consistent with recent patterns. See Section 3.8 of the Final EIS for a discussion of the wind restriction analysis and Section 4.1.2 for operational implementation of the restriction.

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16.17	Centerfield Taxiway	22L/R Departures	A clever strategy Massport uses to confuse the reader and distort the data regarding the benefits of the CFT, is the inclusion of Runway 22L into the menu of uses the CFT would improve upon. The fact is Runway 22L is used very seldom for departures and mentioning how the CFT will improve ground movements at Logan by expediting 22L departures is a [moot] point. Also, air traffic controllers will not hesitate to use the CFT for aircraft using 22R for departure. The net result will be those pilots requesting 22L for departure will then be delayed regardless whether they taxi on November or the CFT.	During busy periods, the Centerfield Taxiway will allow heavy aircraft departing on Runway 22L to avoid the queue of aircraft waiting on Taxiway November to depart on Runway 22R. Approximately 5-10 percent of the departures use Runway 22L in this configuration. These are large aircraft which produce a disproportionate share of noise and emissions. Without the Centerfield Taxiway, these aircraft are delayed on Taxiway November behind the 22R departures; their use of Taxiway November also delays other departures waiting for Runway 22R, creating further noise and emissions. By providing an alternate route to Runway 22R when an aircraft on Taxiway November is delayed due to equipment or enroute ATC constraints, the Centerfield Taxiway would reduce subsequent departure delays and the associated noise and emission impacts.
16.18	Centerfield Taxiway	Runway Crossings	To state the CFT will reduce aircraft idling on taxiway Romeo and Yankee is incorrect. Both taxiways are high-speed turnoffs and are designed for quick and efficient removal of arrival traffic from the active runway configuration. As far as crossing Runway 4L is concerned, Taxiway R and Y are used for 4R arrivals. An expedient crossing of Runway 4L should be available under these conditions a greater majority of the time. The only instance a pilot crossing 4L will be issued a hold short instruction will be if there was a simultaneous arrival on 4L. This is not a valid reason to support construction of the CFT.	When Runway 4R is the primary jet landing runway, Runway 4L is used for non-jet departures as well as for landings by both non-jets and jets. Approximately 75 percent of the jets landing on Runway 4R exit at Taxiway Yankee and another 15 percent use Taxiways Romeo or November. These arrivals cannot cross Runway 4L while another aircraft is taking off or landing on it, or if there is another aircraft on final approach to Runway 4L. Thus, they must queue up on Runway 33R or Taxiway November until a gap occurs on Runway 4L.
16.19	Centerfield Taxiway	Runway Crossings	...aircraft do not queue on 33R. Aircraft crossing 4L under this scenario, (departures on 9 and arrivals on 4R), are usually not a problem since the main runway for arrivals is 4R. Therefore, the light activity on 4L allows the pilot to cross 4L quickly and safely. Should there be an arrival on 4L subsequent to a 4R arrival, it would be a small aircraft, which could taxi off 4L, at Taxiway T, Q, F or even at Runway 15R.	Please refer to the response to Comment 16.18 above. In this configuration, Runway 4L is used for both arrivals and departures in heavy demand. Departures on Runway 4L block crossings from the time they are cleared to takeoff until they have passed the runway end. Arrivals to Runway 4L block crossings while they are on final approach until they have landed, decelerated and exited the runway.
16.20	Centerfield Taxiway	Runway Crossings	...the crossing point for 4L at 33R is beyond Constitution Beach and has not presented a consistent noise problem for either Orient Heights residents or visitors to Constitution Beach under the 9 departure 4R arrival scenario.	Please refer to the responses to Comments 16.18 and 16.19 above. The intersection of Runways 33R and 4L was identified as one of the major taxiway congestion points in the 1993 study "Runway Incursion Mitigation Plan, Taxiway Relocation Study."

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16.21	Centerfield Taxiway	Taxiway Delays	Under the 9 departure 4R arrival configuration, the CFT will exacerbate taxi delays and have a negative impact on air quality over the current operation. An aircraft taxiing on the CFT to Terminal B will have to stop and hold short at taxiways Q, F, C, A, K and Runways 15R and 4L. An aircraft taxiing to the west side of Terminal B or Terminal A will have to stop and hold short on all the above intersections plus Taxiway E. In the final analysis, not only will this be a slower operation, it will also increase air and noise pollution since the pilot will have to provide a high power setting in order to break inertia subsequent to stopping at each intersection.	Aircraft cleared to taxi do not have to stop at intersections with other taxiways nor inactive runways unless otherwise instructed. In the case of the centerfield taxiway, aircraft entering it would normally have to hold for traffic already on the centerfield taxiway.
16.22	Centerfield Taxiway	Impacts	BTD has asked the FAA if they could limit the number aircraft that controllers allow on November Taxiway if the CFT were built. On several occasions, they stated that they will not place a limit on the number of aircraft taxiing on November Taxiway.	Boston Tower Order 7040.1A describes the noise abatement procedures followed by the Boston Air Traffic Control Tower and restricts the number of jets queuing on November north of Runway 15L to 5 turbojets when operating conditions allow. As a result of public concerns about impacts from the operation of the Centerfield Taxiway, FAA is proposing to complete a study to evaluate operational procedures to further reduce Centerfield Taxiway impacts while preserving the operational and environmental benefits shown in the EIS. This study will be coordinated with affected parties and will address taxiing operations in the northern portion of the airfield, both on the existing Taxiway November and on the proposed Centerfield Taxiway. Section 4.2 of this Final EIS discusses this study in more detail. If the FAA decides to conduct such a study, then no decision will be made on the Centerfield Taxiway until the study is completed.
16.23	Centerfield Taxiway	November Taxiway Queue	...the FAA continuously violates Massport's own noise abatement regulation that places a limit on the number of aircraft that should be allowed on November taxiway beyond Runway 15R to the approach end of 22R.	Massport has no noise abatement regulations that limit the number of aircraft on Taxiway November. However, FAA Order 7040.1A states that it is the policy of Boston Air Traffic Control Tower (ATCT) to be a good neighbor and to meet operational objectives and responsibilities while mitigating noise whenever circumstances permit. The specific procedure calls for the FAA to limit turbojets as follows: “No more than five turbojets, including one in position, shall be cleared beyond Runway 15L. Only one turbojet is allowed to be held on November Taxiway between Runways 22R and 22L.” The limit applies to aircraft north of Runway 15L/33R, the 2,600 foot long runway. There is no limit imposed under this policy on the number of aircraft between Runway 15R/33L and Runway 15L/33R. Traffic has grown by approximately 60 percent since the early 1980s when this policy was established, and the percentage of turbojets has increased from about 50 percent of Logan traffic to nearly 75 percent. These two combined effects have increased turbojet aircraft operations at Logan by a factor of almost two-and-a-half (i.e., a 140 percent increase). Over the same period, increases in traffic and congestion throughout the National Airspace System have also led to additional traffic flow management initiatives that controllers must carry out. This increased traffic and operational complexity have made it harder over the years to meet the objectives of the “good neighbor” policy on Taxiway November queuing. While these factors have made it more difficult for controllers to satisfy the limit on Taxiway November turbojets north of 15L, aircraft are much quieter now than when the policy was adopted in the early 1980s. Nevertheless, community concerns about aircraft taxiing at the northern end of the airport are important to FAA. Refer to Section 3.9 of the Final EIS for more information on how Centerfield

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				Taxiway will be used and Section 3.10 for a discussion of the impacts of the Centerfield Taxiway on the communities that surround the northern end of the airfield. Given community concerns about the Centerfield Taxiway and Taxiway November, FAA is committing to undertake an additional study to evaluate operational procedures to further reduce Centerfield Taxiway impacts and to address impacts from Taxiway November. The study will be completed in two phases, and will focus on the area north of Runway 15R/33L. The first phase will focus on the existing taxiway network and will consider measures designed to respond to the community concerns regarding aircraft waiting on Taxiway November to depart on Runways 22R and 22L. The second phase will evaluate specific procedures designed for implementation once the Centerfield Taxiway is constructed while preserving the operational and other environmental benefits shown in the EIS. See Section 4.2.2 of this Final EIS for more information on the taxiway study.
16.24	Centerfield Taxiway	Taxiway Delays	Massport's claim that the CFT will improve delays in the southwest corner of the airport simply makes no sense.	The taxiway system in the southwest corner has evolved into a complex set of intersections and angled entrances that create confusion and potential for incursions, so using the Centerfield Taxiway to bypass this area can reduce congestion. Construction of the Southwest Corner optimization will also streamline traffic flow in this vicinity by isolating the flow from Runway 22L and Runway 27. When Runway 22R is the primary departure runway and Runway 27 is the primary jet arrival runway, Runway 22L is used for non-jet and some jet arrivals that can land and hold short of Runway 27. It is also used for jet arrivals which need more than 7,000 feet for landing. Most of the jets landing on the Runway 22L and many of the non-jets use Taxiways Echo or Papa either because of the landing distance required or to simplify the taxi path to their terminal.
16.25	Centerfield Taxiway	Environmental Impacts	BTD finds it rather amusing how Massport takes credit for moving the aircraft further away from the community under the Runway 9 departure and Runway 4R arrival scenario by placing aircraft on the CFT rather than November Taxiway as they taxi to the gate. While simultaneously stating that moving the aircraft closer to the community when 22R is used for departures and 27 is used for arrivals will not move impacts significantly closer to the communities.	When Runway 4R is used for arrivals, the Centerfield Taxiway will move crossings of Runway 4L south of Runway 33L, from ½ to over 1 mile. Conversely, when Runways 22L and 27 are used for arrivals, the Centerfield Taxiway will reduce congestion and delays in the southwest corner and move some Runway 22R crossings north by ¼ to ½ mile, but still leave them south of Runway 33R.
16.26	Centerfield Taxiway	Safety	Will delays and wing-tip conflicts continue to occur on Alpha and Kilo near Terminals B and C if the CFT is constructed? The CFT will not eliminate conflicts in this area. Also, the unnecessary runway crossings will still occur whether or not the CFT is built.	The Centerfield Taxiway will alleviate the problem of wingtip conflicts between Taxiways Alpha and Kilo. When landing on Runway 4R, wide-span aircraft could use the Centerfield Taxiway to get to Runway 4R for departure. In the opposite direction, wide-span arrivals could use the centerfield taxiway to avoid the bottleneck on Taxiways Alpha and Kilo between terminals B and C. Some conflicts may still occur depending on the runways in use and the location of a wide-span aircraft's terminal.

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16.27	Centerfield Taxiway	22L/R Departures	The benefits of the CFT regarding Runway 22L departures are overstated and misleading for two obvious reasons: First, the number of 22L departures is so low it is not worth mentioning. Second, we can state with utmost certainty, that the FAA will use the CFT for aircraft using 22R for departures. When this occurs, aircraft taxiing to 22L, will once again be delayed only it will be on the CFT rather than November Taxiway, sharply decreasing the level of benefits mentioned in Massport's comments. Residents in the Orient Heights Section of East Boston and the Court Road Section of Winthrop will encounter a dramatic increase in both noise and air pollution.	Refer to response to Comment 16.17.
16.28	Regional	Regional Airports	While the creation of a New England Port Authority (NEPA) requires legislation from the New England states; we disagree with Massport's assertion that it is a matter for the United States Congress.	It is assumed that any bi-or multi-state legislative action to create a regional authority affecting the national airport system and/or national aviation system would constitute an agreement or compact among the involved states within the scope of Article I, Section 10, clause 3 of the United States Constitution. Therefore, Congressional consent to such an agreement or compact would be required.
16.29	Noise	Standards	Although airlines for the most part have complied with federal noise standards, the dramatic increase in the level of operations has compromised the noise abatement gains through technology. If you decrease aircraft noise levels at the source and then triple the number of operations, what have you gained?	The noise contours for Logan Airport are smaller than they have been historically even though the number of flights has increased significantly. The Preferred Alternative reduces noise in the areas of highest airport noise. Massport does not have control of air travel demand, and continued economic prosperity will inevitably produce more demand for air travel. Similarly, Massport has no control over aircraft noise at the source; emission levels are a federal responsibility. Thus, there could very well be a time when the noise of increased operations overpowers the benefit gained from FAA's Part 36 Noise Standards. In such a case, FAA and Massport intend to expand Massport's residential sound insulation program. The Preferred Alternative mitigation program includes several new elements, including sound insulation, an expanded PRAS monitoring and reporting system, and implementation of an expanded peak period pricing monitoring system. Construction of Runway 14/32 would allow a more balanced geographic distribution of aircraft operations over populated areas, will increase the number of over-water operations, and will reduce noise exposure for close-in communities compared to the No Action Alternative.
16.30	Regional Jets	Fleet Mix	Runway 14/32 was designed during a period when a significant percentage of aircraft were prop driven. The purpose of Runway 14/32 was to remove these slower and smaller aircraft out of the stream of jet transport aircraft on approach to Logan. However, the ongoing change from prop driven to jet powered regional aircraft has changed all that. The Canadian Regional Jet (CRJ), Embraer 135/145 will not use Runway 32 for arrival during wet weather conditions. The CRJ will not use Runway 32 for arrival at all. Therefore, the critical question now becomes, is Runway 14/32 worth the investment?	The FAA performed an independent analysis of RJ utilization of the proposed Runway 14/32 at Logan. It should be noted that Runway 14/32 will primarily accommodate arrivals and that required landing distances for arriving aircraft are typically shorter than the distances required for takeoffs. Using the assumptions provided by the FAA's analysis and described in Appendix C of the Supplemental DEIS/FEIR, most of the regional jets forecast to use Logan Airport in the future are capable of landing on a 5,000 foot runway. Of the 184,000 regional jets in the 37.5M High RJ fleet, 43,000 are Dornier 328Jets, 36,000 are CRJs, and 100,000 are Embraer 135/145s. The remaining regional jets are larger 70-seat models that were assumed to be incapable of landing on Runway 32. Assuming that the Dornier 328 Jets could land under any conditions and that the Embraers could land under dry conditions (which occur 88 percent of the time), approximately 131,000 regional jets, or 71 percent of the future regional jet, are able to land on Runway 32. This constitutes most of the regional jets forecasts to use Logan Airport in the future. Using those same assumptions, approximately 79 percent of Logan Airport's recent regional jet operations (June 2001) could land on Runway 32. Refer to Section 3.3 of this Final EIS for a complete discussion of the

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				utilization of Runway 14/32 by regional jets, including an analysis of RJ utilization at other airports. In addition, a sensitivity analysis for the 37.5M High RJ fleet demonstrated that the majority of the delay reduction benefit would be retained, even at levels of regional jet use significantly below those identified by the FAA. For example, even under the pessimistic low utilization assumptions, the sensitivity analysis indicates that 23 percent of Logan's future RJ fleet would be able to land on Runway 32, and runway delays would be reduced by over 20 percent. Refer to Section 4.7.5 Sensitivity to Regional Jet Runway Use, in the Supplemental DEIS/FEIR, and Section 3.3.5.1 of this Final EIS for a discussion of the sensitivity analysis. Also, Logan's two largest regional jets operators, American Eagle and AC Jet (a Delta Connection carrier), have provided letters confirming their intentions to use Runway 14/32 when it becomes operational. Refer to Appendix F of this Final EIS for letters from these airlines as well as other airlines and the Air Transport Association.
16.31	Regional Jets	Runway 14/32 Utilization	Philadelphia International Airport recently constructed a new 5,000-foot runway similar in many respects to Logan's Runway 14/32. Runway 8/26 was a 221 million dollar project designed to reduce delays by offering a separate runway for commuter aircraft. It has not worked out that way. Currently, Runway 8/26 experiences only a dozen flights per day out of the airport, less than 1 percent of the more than 1,300 daily operations.	The situation at Philadelphia is very different from Logan, and the lack of use of 5,000 foot runways at this airport is not an indication of future use of the proposed Runway 14/32 at Logan. At Philadelphia, the design of the 5,000 foot Runway 8/26 was originally intended to provide additional capacity under instrument conditions by separating jet and commuter operations. However, use of Runways 26 and 27L for arrivals creates a wake vortex dependency between the arrivals on 27L and the departures on 27R that adversely affects the jet capacity. Hence, the use of the 5,000 foot runway at Philadelphia actually lowers the capacity of Runway 27R. In VFR conditions, Runway 26 produces little or no increase in VFR airfield capacity, and air traffic control reportedly finds it simpler to operate on the existing configuration. The remote location of Runway 8/26 requires a long and complex taxi route to the main terminal area, and the runway also has a significant down slope that increases landing distances and could restrict some aircraft from using the runway. These conditions are specific to Philadelphia and do not apply to Logan. It should also be noted that the lack of runway use is not an RJ issue. Philadelphia has significantly more turboprop operations than regional jet operations, and even these turboprops are not using Runway 8/26. Refer to Section 3.3 of this Final EIS for a complete discussion of the utilization of Runway 14/32 by regional jets, including an analysis of RJ utilization at other airports.
16.32	Regional Jets	Runway Length	Atlanta Hartsfield International Airport recently broke ground for a new 6,000-foot runway...plans were announced to expand this same runway to 9,000 feet. According to Atlanta officials, the original length of 6,000 feet would result in minimum benefits in the hope of reducing delays since aircraft with a capacity over 50 seats may refuse to use it. By extending the runway to 9,000 feet, most aircraft in the world fleet can land on it in various weather conditions.	The Atlanta Airport is the busiest airport in the world and is consistently ranked by the FAA as one of the nation's most delayed airport. In 2000, the FAA OPSNET data shows that Atlanta was the eighth most delayed airport in the U.S. However, the situation at Atlanta is very different from the situation at Logan. Atlanta serves as the principal connecting hub for Delta Air Lines and as a result there are eight distinct periods of concentrated arrivals and departures throughout the operating day. The basis for the request to extend the Atlanta runway from 6,000 ft to 9,000 ft is to expand the Atlanta Airport's overall capacity by accommodating a greater portion of the narrowbody jet fleet (which require longer runway lengths than regional jets). According to the FAA's Airport Capacity Benchmark Study, the new runway at Atlanta will increase good weather capacity by as much as 31 percent from 185-200 operations per hour to 243-258 operations per hour. At Logan, the proposed 5,000 ft Runway 14/32 will prevent the drop in capacity that currently occurs when northwest winds force the airport to a configuration that is below its normal three-runway operating capacity of about 120 operations per hour. Since it will increase the amount of time that Logan Airport can operate on three runways, it will increase the average capacity of the airport, but it will not increase the normal three-runway

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				capacity of the airport (120 hourly operations).
16.33	Regional Jets	Runway 14/32 Utilization	...will Massport plan to expand 14/32 should it fail to live up to expectations? Atlanta officials learned from the Philadelphia experience, will Logan?	Refer to response to Comment 16.32. If Massport were to propose an increase in runway length, that proposal would have to undergo an environmental review process at the state and federal levels.
16.34	Noise	Fan Pier	An issue that has been overlooked regarding Runway 14/32 is its impact on the City of Boston's plans for development... On the Fan Pier Development Project in South Boston. This mega-project is one of the largest in the city's history and Runway 14/32 will have a negative effect on its residential and professional tenants.	Regardless of whether the Preferred Alternative in the Supplemental DEIS/FEIR is implemented or not, the Fan Pier Project is likely to be exposed to DNL noise levels above 65 dB due to Logan Airport operations over significant portions of the development. Responsible planning would suggest that the developers take this noise exposure into account and provide appropriate sound insulation treatment of residential, hotel, conference, and other noise-sensitive uses planned for the site.
16.35	Regional	Regional Airports	The only way Hanscom and Worcester can experience growth and truly relieve Logan congestion, is for Massport to work with the FAA to improve and expand their infrastructure, aircraft support facilities, terminal buildings and air traffic control systems.	Several regional transportation studies undertaken in the early 1990s concluded that expanded roles for regional airports, high-speed rail and infrastructure improvements at Logan Airport were needed to meet the region's long-term intercity transportation needs. Federal, state and local agencies throughout the region share the goal of improving New England's transportation network and have already begun to work, both independently and cooperatively, to achieve an improved, integrated regional transportation network. Great strides have been made in the last decade. Regional airports have become meaningful alternatives to Logan Airport for certain market signals and passengers traveling to and from New York can now choose high-speed rail over air travel. These are significant achievements that resulted from years of planning efforts involving many different agencies including the New England states. Local airport authorities and the FAA were responsible for significant infrastructure investments at the region's airports. Through individual and cooperative efforts, the regional airports have attracted meaningful airline services and have increased their share of the region's travel demand. Massport has assumed operating responsibility for the Worcester Regional Airport, which is capable of handling more of the region's air travel. In just one year, Massport obtained new air services for the airport, which resulted in a two-fold increase in Worcester's passenger traffic. State governments have undertaken a number of road and commuter rail projects to improve access throughout the region and make regional airports more accessible. The Federal Rail Administration and Amtrak have implemented high-speed rail along the Northeast Corridor, the only active high-speed rail service in the nation. To further the role of regional airports, the FAA, Massport, the Massachusetts Aeronautics Commission, the other five New England states, the Manchester Regional Airport, and the Rhode Island Airport Corporation are conducting the New England Regional Aviation System Plan, a continuation of the 1995 New England Regional Airports Air Service Study. The study will forecast long-term passenger and cargo demand for the entire region, identify operational capacity and environmental constraints to growth, and formulate strategies for maximizing regional airport use and creating a balanced and efficient regional airport network. Regional airport, aviation and transportation planning officials from each of the six New England states will participate in the study. While greater use of the regional airports and high-speed rail will provide relief to Logan Airport, these initiatives fail to address a significant source of Logan's airside delays. The Preferred Alternative provides clear benefits at recent and future traffic levels by reducing preventable delays that occur during northwest wind conditions. Northwest wind delays at Logan Airport, which inconvenience and create unnecessary costs for hundreds of thousands of air passengers each year, cannot be mitigated through regional

Code	Topic 1	Topic 2	Comment	Response
				alternatives.